

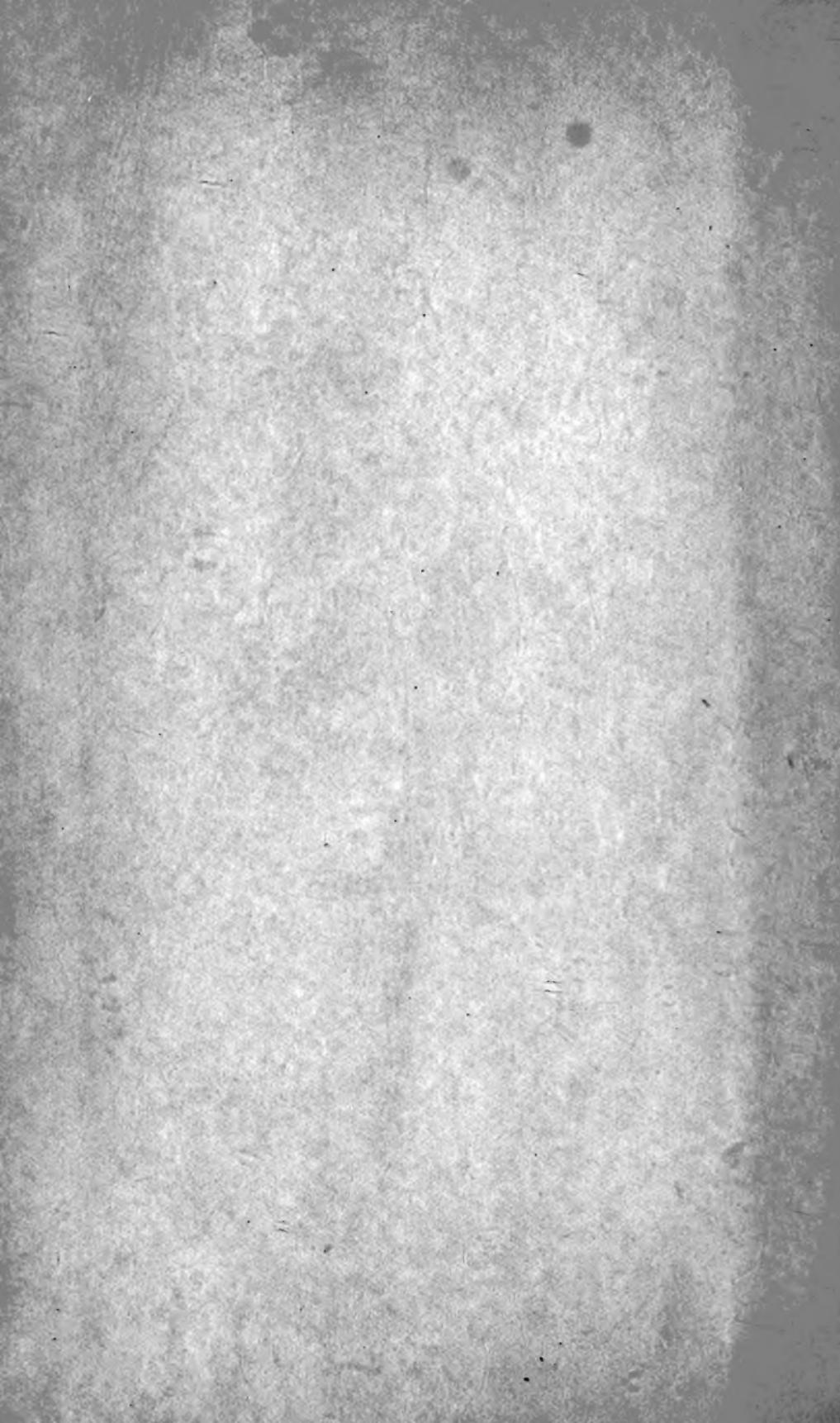
80°/

J. Blithard

1915

alluvium

2



J. L. Leacock
1914



B. Crossland Jr.
1909

You may keep the copy of "The Circulator"
~~I shall~~ for your own library. I think I know where her
is elsewhere.

THE

CIRCULATOR,

new

A MAGAZINE OF

LITERATURE, SCIENCE & ART,

Article on "The HALEY HILL Literary and
Scientific Soc. by James Toos.
Halifax Naturalist. Vol VI. pp 89-92

HALEY HILL

LITERARY AND SCIENTIFIC SOCIETY.

1866-7.

HALIFAX:
R. LEYLAND & SON, CORN MARKET.
1867.



PREFACE.

To write a Preface is not a very easy matter; but it may be safely said that it is quite as easy to write one as it is to get one read, especially if the Matter of the Book is of an interesting character. The uneasy feeling consequent upon the very thought of sending forth this unpretending Periodical, without saying something about the objects and wishes of those who conduct it, has led us to make a few remarks. Those who have attempted to study any branch of Science, at least in its practical part, must have felt the great want of museums, extensive collections, good instruments; and, above all, of kindly co-operation. Take Geology;—who that has taken his hammer and goniometer, and gone out into the field to study the strata of Halifax, has not soon found himself utterly unequal to the task? The delightful toil of his leisure hours has added much to his knowledge and skill, and perhaps enriched his collection with beautiful specimens; but still he finds himself very far from having mastered the details of even the most limited district of his parish. His only hope lies in finding other earnest and devoted fellow-labourers in the same interesting Science.

To bring together the accumulated facts and observations of many observers; to be the medium of communication among

those who make Science the delightful occupation of their leisure hours; to arrange excursions to different points of interest in the neighbourhood; to facilitate the exchange of specimens and the completion of sets; to form periodical exhibitions of natural objects;—these, among others, are the objects contemplated by those who have undertaken the management of this Magazine.

It is therefore hoped that the members of Scientific Societies will avail themselves of the opportunity thus afforded to make their discoveries and rambles less circumscribed in their usefulness than they generally are. The pages of this Journal will then become another means of diffusing knowledge and pleasure.

Halifax, Sept. 3rd, 1866.

A Torrid Incident in a Temperate Zone.

Alas, the hour ! and ah ! how sad the day,
When to a Turkish Bath I took my way.

A Turkish Bath, reader—did you ever experience one? If you answer in the affirmative, you need not peruse the history of my sufferings; if in the negative, and a morbid tendency to adventure urge you to such a dangerous experiment, then hear my warning voice. It was in the 1279th year of the Hegira, in the month of Ramadan, which by common computation brings you to the year 1863, that, having perused many brilliant testimonials, each purporting to be somebody's experience, and being deluded thereby, I, in an evil hour, dreaming of the Sublime Porte and its proverbial luxuries, gave up my body to the manipulations of strangers. It was thus: upon my entrance, the door was noiselessly shut behind me, and the proprietor, apparently a guileless man, led the way into the undressing room, furnished I presume somewhat in the fashion of the East—i.e., with low stuffed couches upholstered with dimity, in wonderful kaleidoscope patterns, and very favourable to a reclining position. Here it was that an attendant abruptly roused me from a temporary fit of musing, by requesting me to undress; at the same time he presented me with a mysterious-looking primitive sort of scanty apron (I learnt the name afterwards). I was about to ask for a private explanation, when he vanished “like a guilty thing.” I soon found myself like Adam in Eden; in other words, like a Nileometer at low water; and the use of the novel garment presented to me by the attendant, dawned upon me. Whilst I was waiting, *coolly* considering what next, a man unattired, like myself, beckoned me to follow. Come, thought I, this rather smacks of the Arabian Night stories; and amidst a flood of reminiscences thus called up, I entered into a warm current of air, which led me into a room. The heat generated there was, to use an Americanism, “a caution.” Well, I shall content myself with saying that my sufferings were rendered more tolerable by the society of a number of gentlemen quite as well dressed as myself, and who had disposed themselves into the varied attitudes suggested by overheated brains. I had not been very long in my new

quarters when we were informed that "if any one thought proper he might try the next room." I, dying with heat, eagerly availed myself of the offer, fondly thinking to gain a cooler atmosphere, followed my man into the next room; when, to my dismay, I found it hotter than the one I had just left. The breath of the dreadful simoom would be a refreshing breeze compared to the hot blast I met as I entered. It was going out of the frying-pan into the fire. In a few minutes the same evil genius brought us cold water to drink; at the same time he invoked by its aid the spirit of perspiration to fall upon us; and I am bound to confess that some hundred millions of my pores opened freely under the spell. It seemed as though the solid flesh would melt, and leave us sitting in our bones. One of the gentle sufferers happening to ask the attendant what countryman he was, I ventured even at that miserable juncture to risk a pun, and suggested "that very likely he was a Hotterman (Ottoman);" but as nobody laughed, it only augmented my misery. After having had my limbs pulled and jerked like a Negro at a slave mart, I was ordered out (by this time thoroughly subdued) and laid upon a marble slab. Here I was thumped, soaped, and lathered, until my flesh became of a roseate hue, like a little child's, and I was pharisaically clean. It only remains to be told how, whilst standing in a corner, sadly ruminating, suddenly several hundreds of tiny jets of cold water were concentrated upon my poor body, effectually closing the millions of pores so lately opened. I was then rubbed down after the manner of juvenile darlings who have just experienced the Saturday's periodical wash-tub; then, arrayed in a slight fancy overcoat or dressing gown, I found myself stretched upon one of the before-mentioned couches, confessing to myself that we are indeed fearfully and wonderfully made, considering the number of violent changes a man is able to undergo and yet live. At the same time I determined to confine my aquatic sports to a short swim and a cool header. Gentle reader, if you be a man of delicate organization, or have a constitutional tendency to apoplexy, or a large head and short neck, then beware of the Turkish Bath. Believe the faithful testimony of one who was compelled to perspire as freely as the Arabian trees give forth their medicinal gums; and being now clothed and safely reduced to his normal temperature, out of a pure love to humanity leaves this writing upon record.

G. W.

✓ Popular Geology.

OF all the subjects which have ever engaged the attention of man, perhaps none have excited his interest and curiosity so much as Geology. Men are drawn to it in various ways; some study it as a profession; others, through studying some cognate science; but by far the greater number are led to it out of curiosity. They wish to examine for themselves the grounds upon which geologists base their opinions. They want to know "if there is anything in it," "if the world be really so very old," "if it be true that so many races of plants and animals have become extinct." They wish to know if the wonderful restorations of a Mantell, a Buckland, or an Owen had ever any real existence. When they go to the Crystal Palace at Sydenham, and behold animals of such vast size and strength that one blow of their paws would be instant death to the largest crocodile that ever basked on the banks of the Nile; or if they go to the British Museum, and stand before the monster elephant (Mastodon) and a host of other fossil animals, they want to know when they lived, where they lived, and what relation they hold to living animals; and when they are told that they inhabited this country, and that some lived upon herbs and some upon one another, like those at the present day, and were succeeded by animals such as are now confined to tropical regions, as the lion, tiger, cave boar, hyæna, hippopotamus, rhinoceros, &c., &c., they see at once that there is "something in it."

Curiosity first led me to study this subject. When I went about in our own neighbourhood, and picked up from every shale-heap at the coal-pits of Shibden and Low Moor specimens of what appeared to be marine and freshwater shells, along with teeth and scales of fish, I asked myself, could these be mere sports of nature? could chance have placed them there? And when I saw those beautiful shells of the nautilus, so much like the shells which inhabit the southern seas at the present day, I asked, were they the ancestors of the argonaut of the poet who tilts along the Atlantic waves—

"But if a breath of danger sound,
With sails quick furled she dives profound,
And far below the tempest's path,
In coral grotos defies the foe
That never broke, in heaviest wrath,
The Sabbath of the deep below."

If so, then Shibden dale must have been at that time the bed of some deep sea. What a thought was that! To think that I was wandering on an old sea bottom, among the remains of animals that existed myriads of ages before man was created! And when I saw in our stone-quarries at Northowram, and the ironstone beds of Low Moor, large specimens of fossil trees, such as the beautiful *Lepidodendron*, and the ornate *Ulodendron*, and the tall reed plants (*Calamites*) with fluted stems, of the same family as our canes and the horse-tail plants, or the fluted and carved stems of the *Sigillaria*, which grew in such profusion as to form the chief part of our coal-beds; and all of them belonging to genera which have long since passed away, I wondered how they came there, and what sort of climate they grew in, and how they passed away when their appointed time had come. And thus led on, like many others, I could not leave off until I had learned the story from the rocks themselves.

Geology treats of the structure, mode of formation, and order of the rocks that form the crust of the earth, and also describes the fossil remains of plants and animals which they contain. All the various kinds of rocks which form the earth's crust may be divided into two great classes, Stratified and Unstratified.

1. Unstratified or igneous rocks are those which owe their origin to subterranean heat, as granite, basalt, &c. These form the foundation upon which all the other rocks are laid.

2. Stratified or aqueous rocks have been formed out of the waste of the igneous rocks, through the agency of moving water, and have been deposited and arranged in layers at the bottom of rivers, estuaries, lakes, and seas.

The surface of the earth is continually being wasted by a multitude of causes, such as rain, wind, frost, snow, ice, and the never-ceasing action of the breakers on the sea-coast. Every rill and stream carries more or less of this *debris* or waste of material into the rivers and seas, where it is spread out in layers and hardened or compressed into rocks. This levelling process would go on until every particle of land had been swallowed up by the sea, if it were not for another great force which acts as a great counterpoise to the great leveller, water, and that is heat. Volcanoes and earthquakes are two great agents, sometimes forming peaks 10,000 feet high, and at other times raising islands out of the ocean in a

single night. But there is another mysterious force which has never yet been thoroughly explained, which has acted a more important part in upheaving continents, and keeping the equilibrium between land and sea, than all the volcanoes and earthquakes that ever existed. We see the effect, but cannot explain the cause; we only know that it is in some manner connected with internal heat. The coasts of Norway afford an interesting example of this silent force, which is known to be upheaving that country and a great part of Sweden at the rate of four feet in a century. South America and other parts of the world exhibit the same phenomenon. The raised sea beaches of Scotland owe their origin to this same force. In fact, the whole of Great Britain has been raised in this manner out of the sea. While one part of a country is slowly rising from beneath the waves, another part may be gradually sinking below them, and receiving an accession of strata. Thus, while one part of Sweden is rising, another part is known to be sinking. Our own Yorkshire coast is an example of these opposite movements. Many hamlets and villages along the coast of Holderness have been destroyed within the memory of living men, by the remorseless waves; and it has been calculated that more than two miles of coast have been thus destroyed by the sea during the last 1900 years; while, on the other hand, the neighbourhood of Hull has received an increase of land called Sunk Island, and the area is continually being enlarged. How beautifully has Tennyson described the strange mutations of land and sea—

“ There rolls the deep, where grew the tree,
Oh ! earth, what changes hast thou seen !
There where the long street roars, hath been
The stillness of the central sea.

The hills are shadows, and they flow
From form to form, and nothing stands ;
They melt like mists, the solid lands,
Like clouds they shape themselves and go ”

It might have been supposed before Geology was known, that the various rocks which compose the crust of the earth were jumbled together in a confused way, sandstone here, clay or shale there, limestone in one place, and slate rock or granite in another, or all mixed together, as the case might be—dropped down, as some learned men in olden times asserted, by the tail of a comet. But Geology teaches us otherwise ; it shews us

that they are arranged in a regular systematic order. The rocks are not mere patches, for some extend in a continuous line for hundreds of miles. The coal-measures of the North of England, for instance, extend from Northumberland to Derbyshire, and the chalk rocks from Flambro' Head to Kent, and thence across the country to the Bristol Channel. If we walk over the country from Halifax to the east coast, after leaving behind sand-stone rock and coal strata, we shall pass over new red sandstone, then lias marls and oolite, and arrive at Flambro' Head, on the chalk rocks. If we go from Halifax to Cumberland, after passing over moorlands of grit and shale, and over the limestone rocks of Craven or Clitheroe, and the old red sandstone of Westmoreland, we arrive at the slate and granite rocks of Skiddaw. Here we see that the oldest rocks, such as granite, slate, and the like, occupy the highest summits, and the others lie upon them in succession, one upon another, the youngest being last, and consequently the uppermost. Generally speaking, the igneous rocks occupy the west and north-west of England, and the oldest stratified rocks lie upon them, occupying the middle of the country, while the east and south-east are covered by the newer formations. This order of arrangement is never inverted; if, in any locality, we find one set of rocks under another set, we never find them placed over them in any other place. For example, the lower coal strata of North and Southowram lie upon the grit rocks of Halifax, and are covered by the well-known flagstone rock. The same order of arrangement has been observed at Leeds, Bradford, Sheffield, and even in Lancashire. This is what is meant by the term "succession of rocks." As all the formations from the Silurian slate of Skiddaw to the chalk rock of Flambro' Head contain marine shells of various species, "it is evident that those found in the lowest formations belong to animals that lived in an earlier stage of the world's history than those found in the strata immediately above them; and so on through all the other successive formations till we come to the chalk; and if it should be found that *in some degree, or altogether, the shells of each formation are of species distinct from those of any other formation*, then by the fossils alone we shall be able to tell to what stage of the world's history these forms of life belong, and a clue is thus obtained to the history of the succession of marine life of the globe. This law is called "*the succession of life in time*," which, along with the *succession of strata*, is the foundation upon which Geology is

based. I shall perhaps explain these laws best by giving a short description of the rocks in our neighbourhood, where the reader may examine for himself the foundation on which our science is laid; for ten minutes' examination of a quarry or coal-pit will give him more sound information on the subject (especially in company with a geological friend) than a month of book-reading.

(The subject will be continued in the next number.)

J. S.

Excursion to Malham.

MALHAM in Craven is remarkable for the rare and interesting character of its Flora. Hence it is a place of great importance to the naturalist, and was selected for the Haley Hill Literary and Scientific Society's excursion on Saturday, May 3rd, 1865. The members alighted from the Midland Railway at the little station of Bell Busk, which is about five and a half miles from Malham. The day was sufficiently bright and fine to obtain a view of Malham from the top of a little mound near the station. The path first lies through a few fields which are bounded by walls of limestone matted with moss and adorned with lichens. From a stream in these fields was gathered the close-leaved pond-weed (*Potamogeton Densus*) in bloom. This plant grows entirely submerged except during the impregnation of the seeds, when the flowers are just out of the water. From the tendency of submerged aquatic plants to shrivel up in drying, it is necessary to make an examination of their parts at once, and for this purpose a small lens called the Coddington lens is useful. We now come to a road leading through a beautiful tract of pasture land, enclosed on both sides by high hedges of Thorn and other trees, under whose shade are growing many plants which deserve particular attention either for their beauty or rarity. The Harts-tongue (*Scolopendrium Vulgare*); the common maiden-hair (*Asplenium Trichomanes*), both ferns of no ordinary beauty, may be found here together with many of the flowers which deck our hedge-banks in Spring. The common Polypody (*Polypodium Vulgare*) appears to have made in these hedgerows

a lasting retreat well adapted to its growth from the moisture and shade afforded. It is often seen on the trunk of some tree a little distance from the ground. This elevated position displays the fern in its natural beauty. Fronds may be found here twenty inches in length; and the variety *Serratum* is not at all uncommon, having the saw-like character of the edge very clearly defined. In my specimen of this variety the depauperated character of the seeds is very apparent, being less than one-half the size of those produced in the normal form of the plant. This observation applies to many other ferns where varieties occur, and specially where an attenuation of the frond appears. The Guelder Rose (*Viburnum Opulus*) was in flower. This belongs to a genus of plants chiefly American, which are often planted in shrubberies for their beauty in decay. The leaves turn a dark red in Autumn, and sometimes assume a pink or crimson hue, but its beauty does not last much beyond the summer season. Its outer row of flowers is barren of stamens and pistils, and the inner one is fertile. The first village on the road is Airton (the village on the Aire) with its neat little houses and flowery gardens. On the village walls was growing the Wall Rue Fern (*Asplenium rata-murari*), among some large tufts of the Stone-crop (*Sedum Acre*), a plant very abundant in this district, having bright yellow flowers whose contrast with the dark green color of the fern gives it an additional charm. I know of no other place where this plant attains such a luxuriance, and I fear the habitat will soon be destroyed by the children romping on the walls to gather the flowers among which it is so snugly growing. A little distance from Airton is a shady lane diverging to the left and leading to a barn. Here the herb True-love (*Paris Quadrifolio*) was discovered in moderate abundance. This is a singular-looking plant, being almost entirely green, with the exception of the anthers and styles which are yellow, and the germen which is of a violet color. The berry which turns nearly black is the most dangerous part of the plant, and is said to be specially fatal to fowls. On returning to the main road and looking closely on the edge of the water which has fallen from the elevated hedgebank, may be seen a beautiful species of Hepatica (*Pellia Epyphylla*)* with its bright

* During the Spring of 1856, I noticed a very large patch of ground in Shibden Dale, in the wood near the Coalpit water-wheel covered with this moss in full bloom. The dampness and gloom of this wood seem to answer its requirements remarkably well.

silvery stems rising from a dark green fringed leaf or frond. At the summit of the stem is a calyptra, opening with four divisions, which contain the spores or seeds.

The next village is Kirby Malham, with its fine old Norman Church and hospitable Inn. The scenery here is truly beautiful, and, in some places, wild and grand. At the entrance to the churchyard may still be seen a specimen of the ancient Lichgate, which is a short covered passage where the mourners of the dead waited with the body the arrival of the minister. This is the only remaining Lichgate in these parts excepting the one at Burnsall. The impressive stillness in the churchyard was only broken by the gentle passing of the breeze which waved the tall grass on the graves of those who have slept for ages, and whose monuments have ceased to tell of the departed and thus blotted out their memory for ever. This is one of the churches which suffered mischief at the hands of Cromwell's soldiers. A few miles distant is Calton Hall, the seat of General Lambert, celebrated in the stormy times of the civil wars. Here the Bladder fern (*Cystopteris fragilis*) was noticed in great abundance. This is one of our prettiest native ferns, and is moderately distributed over the north of Yorkshire. We were now very much interested in assisting our Entomologist to excavate a fine specimen of *Fungi Polyporus squamosus* which he rightly suspected as the habitation of some very pretty beetles. By this time Malham Cove could clearly be seen, and our attention was absorbed with the view until we reached Malham. Here are a chapel, two Inns and a Temperance Hotel. At one of these Inns I was much astonished to see a large basket full of choice plants taken from the surrounding locality, with the intention of being conveyed away. Whoever the collector might be, I am sure he has no just appreciation of our native wild plants, and the preservation of their habitats, or he would not gather them with such a ruthless hand. If this practice become common it will deprive Malham of its botanical celebrity. I can find no fault with those Botanists who wisely conceal the precise locality of the Holly fern (*Polystichum Lonchitis*) &c., for, were it found out by one of these offenders, I believe the plants would no longer remain to please the eyes of a favoured few. After a short rest we turned out for the afternoon's ramble. In passing up the stream, which runs under the Cove, was found the Blue Jacob's Ladder

(*Polemonium Cœruleam* *) in full bloom. This is a beautiful flower and somewhat rare. Its range of growth is said to be from Derbyshire to the south of Scotland, and it was first found at Malham Cove by Dr. Martin Lister. The following plants were noticed near the same place:— the Globe flower (*Trollius Europæus*), the musky stork's bill (*Erodium Moschatum*), Wild Thyme (*Thymus Serpyllum*), the Tuberous Moschatell (*Adosca Moschatellina*), and the mealy primrose (*Primula Farinosa*). As soon as this last flower is fully expanded, its color begins to fade, unless it grows in a very shady situation. Specimens of every hue may be found from the deep *Primula* to red and almost white. Common Butterwort (*Pinguicula Vulgaris*) is abundant on the wet moors above Malham. One mile east of the Cove is the rocky cleft of Gordale, admitting the passage of a stream over its shelving rocks, and forming a scene of remarkable beauty and grandeur. Following the course of Gordale Beck through the fields and crossing the road, we come to Jennett's Cave, situated in a deep and rocky glen, which is perhaps one of the most picturesque spots in Malham Dale. The varied character of its romantic scenery has no doubt associated its name with the ideas of Fairy-land, and the cave is still pointed out where the Fairy Queen presided over the nymphs whose dance and revelry have long ceased. The only sounds now to be heard are from the rooks and the murmuring stream. A few hours careful search in this lonely dell will well reward the labours of the botanist.

For a List of Malham Plants, see Miall and Carrington's Flora of the West Riding.

J. W.

Waivin Mewsic.

Ther's mewsic i' th' shuttle, i' th' loom, an' i' th' frame,
 Ther's melody mingled i' th' noise,
 For th' active ther's praises, for th' idle ther's blame,
 If they'd hearken to th' saand of its voice;
 An' when flagging a bit, how refreshing to feel,
 As you pause an' look raand on the throng,

* This plant has been found sparingly in Shibden during the present year by one of our members, Mr. James Whiteley, of Shibden Head.

At the clank o' the tappet, the hum o' the wheel,
Sing this plain unmistakable song :—

Nick a ting, nock a ting;

Wages keep pocketing;

Working for little is better nor laiking;
Twist an' twine, reel an' wind;
Keep a contented mind;

Troubles are oft of a body's own making.

To see working folk wi' a smile o' ther face,
As they labour thear day after day,
An hear th' women's voices float sweetly throo th' place,
As they join i' some favourite lay;
It saands amang th' din, as the violet seems
'At peeps out th' green dockens among,
Diffusing a charm over th' rest by its means,
Thus it blends i' that steady old song :

Nick a ting, nock a ting;

Wages keep pocketing;

Working for little is better nor laiking;
Twist an' twine, reel an' wind,
Keep a contented mind,

Troubles are oft of a body's own making.

An' then see what lessons are laid out anent us,
As pick after pick follows time after time,
An' warns us, tho' silent, to let nowt prevent us
From striving by little endeavours to climb;
Th' world's made o' trifles, it's dust forms a mountain,
Then never despair as you're trudging along;
If troubles will come an' your spirits dishearten,
You'll find there's relief i' that steady old song ;—

Nick a ting, nock a ting;

Wages keep pocketing;

Working for little is better nor laiking;
Twist an twine, reel an wind;
Keep a contented mind;

Troubles are oft of a body's own making.

Life's warp comes throo Heaven, th' weft's faand bi us sen,
To finish a piece we're compell'd to ha' boooth,
Th' warp's reight, but if th' weft should be faulty, how then ?
Noa waiver i' th' world can produce a goooid clooath;
Then let us endeavour by working and striving,
To finish awr piece so' s noa fault can be fun,
An' then i' return for awr pains an' contriving,
Th' takker-in 'll reward us and whisper well done.

Clink a clank, clink a clank,
 Working withaat a thank,
 May be awr fortune, if soa niver mind it,
 Striving to do awr best,
 We shall be reight at last,
 If we lack comfort now, then we shall find it.

J. H.

Calderlee.

The light wind bloweth, a silvery gleam
 Comes on the leaves o' the willow tree;
 Oh! why fleeth the boy so fast
 On the bonny banks o' Calderlee.

“ Mother, oh! leave your babe and come
 Down to the edge o' the lowland lea,
 For Effie she sleeps, so cold and white,
 Mid the bonny lilies o' Calderlee.

There in her death-wan beauty lay
 Effie the child so fair to see,
 Cradled upon the sedges dank,
 And rocked by the waters o' Calderlee.

There in her death-cold beauty lay
 Effie the child so sweet to see,
 And the tresses o' gold of her bonny hair
 Lay on the waters o' Calderlee.

The little bird sang his roundelay
 Mid the deep green o' the alder tree,
 But the mother she heard not the wee bird's song,
 As she wept on the banks o' Calderlee.

The lily lifted its snow-white cup
 'Bove the waters under the willow tree,
 The mother she saw but the lily that lay
 Dead mid the lilies o' Calderlee.

The wee bird sings on the alder bough,
 Spring-tide and summer merrily,
 But the voice of Effie no more is heard
 On the bonny banks o' Calderlee.

J. F.

List of Lepidoptera (Butterflies and Moths)

TAKEN WITHIN THE PARISH OF HALIFAX, IN AUGUST.

LARVÆ. *SMERINTHUS POPULI*, Birk's Hall and Castle Carr.
CERURA VINULA do. do.
LASIOCAMPA QUERCUS, Norland Moor.
SATURNIA PAVONIA-MINOR, do.
ACRONYCTA RUMICIS, Copley.

IMAGOS. *PIERIS BRASSICÆ*, common everywhere.
 " *RAPÆ* " "
 " *NAPI* " "
CÆNONYMPHA PAMPHILUS, Luddenden and Castle Carr.
CYNTHIA CARDUI (1), near Ringby, 1865.
VANNESSA ATALANTA, Cemetery Gardens, Haley Hill.
PORTHESSIA AURIFLUA, on a wall, Haley Hill.
BRYOPHILA PERLA, at rest on walls.
LEUCANIA PALLENS, Shroggs Wood.
GORTYNA FLAVAGO, Cromwell Bottom, &c.
XYLOPHASIA POLYODON, abundant everywhere.
LUPERINA CESPITIS, Shroggs Wood.
APAMEA OCULEA, abundant, at rest.
TRIPHEENA IANTHINA, Stony Royd.
 " *PRONUBA*, abundant everywhere.
NOCTUA XANTHOGRAPHA, abundant, Akroydon.
COSMIA TRAPEZINA, Long Wood, Skircoat.
POLIA CHI, abundant on walls.
HADENA OLERACEA, Akroydon.
PLUSIA CHRYSITIS, Elland Wood.
 " *GAMMA*, abundant everywhere.
MANIA MAURA, Copley.
CROCALLIS ELLINGUARIA, Copley and Norland.
CABERA PUSARIA, "
HALIA WAVARIA, abundant, Akroydon.
ABRAXAS GROSSULARIATA, abundant in gardens.
YPSIPETES ELUTATA, Copley Wood.
MELANIPPE FLUCTUATA, abundant everywhere.
CIDARIA TESTATA, Shroggs Wood.
 " *POPULATA*, "
 " *FULVATA*, Copley Wood and Castle Carr.

PIONEA FORFICALIS, common gardens.
SCOPULA LUTEALIS, Shibden and Cromwell Bottom.

E. H. & D. B.

In order to make this list as complete as possible, the Editor will be obliged if Entomologists will forward lists of their captures in each month, with dates and localities, not later than the 28th of each month.

AUGUST, 1866.

KING CROSS, HALIFAX.

	1st week.	2nd week.	3rd week.	4th week.	Means for the Month
Barometer	28.893	29.112	29.155	29.251	29.745*
Thermometer (1).....	56 $\frac{1}{2}$	55 $\frac{1}{4}$	57	60 $\frac{1}{2}$	57.2
Maximum (2)	66	63	69	69	69
Minimum (3)	43	45	42	51	42
Range of Temperature	23	18	27	18	27
Mean Daily Range ...	10	11	11	10	10 $\frac{1}{2}$
Force of Wind (4) ...	3 $\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{3}$	1 1-5th lbs.
Amount of Cloud (5) .	7	8	6 $\frac{1}{2}$	7 $\frac{3}{4}$	7 $\frac{1}{3}$
Days Rain fell	6	7	4	3	23
Rain	1 $\frac{1}{4}$	1 $\frac{1}{2}$	$\frac{1}{2}$	1-10th	5 inches.
Ozone (6)	3 1-7th	1 5-7th	3 1-7th	1	2
Humidity of Air (7)...	75	75	70	76	74
Easterly Winds.....	1	5	6	12	27
Westerly ,	19	13	14	9	61

* Reduced to sea level, and corrected for capillarity, index error, temperature, and diurnal range.

(1) In shade.

(2) i.e., greatest heat in shade during the day.

(3) i.e., greatest cold in shade during the night.

(4) The numbers represent pressure in pounds on the square foot.

(5) A cloudless sky is called 0 : an overcast sky 10.

(6) Scale 1 to 10.

(7) Complete saturation, 100

Weather and Weather-Glasses.

OUR subject is "Weather and Weather-Glasses." Let us try to ascertain what this word "weather" really means, and what it is to understand the science of the weather, so as to be able to forecast its condition at a given time and place. Now those of us who are in the habit of putting our thoughts into precise language, will not think it a difficult matter to say what the word "weather" usually means. In a general way it may be said to signify "the state of the atmosphere;" i.e., the state of the atmosphere in respect to weight, dryness, electricity, &c., &c. To understand and ascertain the ever-varying weight of the atoms of air and vapour; the electrical condition of the air; the manner in which its movements are caused by heat, electricity, magnetism, hills, mountains, seas, deserts, the earth's daily motion, planetary influence, &c.—this is to understand the science of the weather: this is what Meteorology teaches. We can already see the immense proportions of the subject, and perhaps also something of the extreme difficulty that attends its investigation. At first sight the difficulties seem to be insurmountable; and it is only by patient, laborious, and continued observation of details that we are able to discover the real principles of the science.

We propose firstly to take a rapid review of the physical properties of the atmosphere, and the principal causes affecting the state of the weather: secondly, to describe the principles on which the weather-glass is constructed; lastly, to give a few simple rules for reducing and correcting the readings of the instrument, together with some hints for interpreting its indications.

1. *Physical properties of the atmosphere.*

The air has weight. It is found that 100 cubic inches of air weigh about 30 grains; that the pressure of the whole atmosphere is about 15lbs. on every square inch, and that the entire weight is 11,449,000,000 hundreds of millions of pounds. The air is also elastic, i.e., contracts when pressure is applied, and recovers its volume when it is removed. If two cubic feet of air be compressed into the space of one cubic foot, the elastic force is doubled. As each stratum of air is compressed only by the weight of air above it, it is plain that the portions nearest the earth are heaviest, or most dense; and the higher we go towards the upper limit of the atmosphere, the less the pressure becomes. About three-fourths of all

the air in the atmosphere lie within four miles of the earth's surface. Its height, supposing it to be of uniform density, would be about five miles: but it is considerably higher, probably about 50 miles. First among the causes affecting the atmosphere, and giving rise to winds, rain, and other phenomena, is heat. Heat causes air to expand. Hence in the tropics there is a powerful upward current of hot air, and a consequent rush of cold air from the poles to supply its place. If the earth were at rest, and its surface occupied by water, we should have but two great winds or currents of air—one from the equator to the poles, and the cold current from the poles to the equator. Mountain ranges, elevated plains, deserts, vast masses of land, extensive forests—all combine to break the uniformity of the temperature of the globe, independently of the direct action of the sun. For instance, a current of warm air loaded with vapour, coming in contact with the lofty ridge of Blackstone Edge, would leave much of its weight on the Lancashire side, and reach us as a much drier wind. The precise nature of the influences of the great forces electricity, magnetism, &c, is not so easily described. Indeed, much must yet be done before we shall be in a position to say positively which is the cause and which the effect under given conditions.

2. *Construction of the Weather-Glass or Barometer.*

A weather-glass is a rude barometer. The barometer is made with the most scrupulous care, and, after certain corrections, varying in each case, becomes an exceedingly trustworthy and beautiful instrument. It is intended to measure the ever-varying weight of the air, and is thus constructed. A glass tube about 32 inches long, and closed at one end, is filled with pure mercury; the open end is then stopped with the finger, and dipped beneath the surface of mercury contained in a glass or wooden vessel. The instant the finger is removed, the fluid within the tube falls an inch or two, and then remains at rest. Thus, as there is no air within the tube to press the mercury lower, it is supported by the pressure of the air without upon the surface of the fluid in the cistern. The distance from the level of the mercury in the cistern to the top of the column within the tube is then carefully measured, and marked upon the brass or wooden support. To render the instrument valuable as a scientific indicator of the pressure of the air, many corrections are required, depending upon the bore of the tube, the temperature of the room, the mode of mounting, &c., &c.

Influence of elevation, &c.—If the barometer be placed at the sea-

level, its average height will be about 30 inches: at an elevation of 18,000 feet, about 14 inches: at 36,000 feet, $3\frac{1}{2}$ inches: at 36 miles, much less than a hundredth of an inch. For the sake of comparison, it is usual to reduce the readings of barometers to the sea-level. This may be done somewhat roughly by adding one-tenth of an inch to the reading of the barometer, for every 100 feet the place is above the sea.* The height of the column is affected by many causes besides elevation. We have seen that heat renders air lighter, and cold makes it more dense. Hence the barometer is lower at the equator than in colder regions. Careful observation with the best instruments has shewn that the barometric column rises and falls every day under the influence of the sun upon the air, quite independently of storms and high winds, &c. So regular are these daily undulations in the tropics, that the hour of the day may be known by them.

3. Corrections.

In order to compare the barometric reading with those given in the *Times* and *Standard*, it is necessary to apply a correction for elevation:— Add 1-10th of an inch for each 100 feet above the sea-level. The corrections for temperature, &c., may be disregarded for ordinary comparison. It is usual to engrave the words Change, Fair, Rain, on the dial of the weather-glass. No importance should be attached to them. The observations of two centuries show that heavy rains, and of long continuance occur at Change; that rain often falls when the Mercury is at Fair; and in winter, fine bright days often occur when the hand points to Rain. On this subject, the following remarks which I have translated from Dove's 'Das Gesetz der Stürme,' may be of service to those who watch their barometers and weather-glasses.—

"The words 'Fair,' Rain, &c, lose their value from the fact, that the difference of temperature, and therefore of weight between the Northerly and Southerly currents, is much greater in winter than in

* To facilitate this simple reduction the following heights are given:—

Trafalgar, B.M. 662.6.

Rhodes Street, Lister Lane, B.M. 600.2.

Haley Hill Shed, B.M. 528.3.

Stannary Hall Gates, St. James's Road, B.M. 529.

Clare Hall, B.M. 457.6.

Picce Hall, B.M. 438.4.

Bottom of Horton Street, B.M. 408.6.

Top of Wade Street, B.M. 460.4.

summer. Since the variations of the barometer are much greater in winter than in summer, it is clear that the scale for winter should be at least twice as large as that for summer. Hence the advantage of putting a summer scale on one side of the tube, and a winter scale on the other. Perhaps the best lettering would be 'N.E. Polar current,' for the top of the scale; 'E, or W. transition,' for the middle; and 'S.W. equatorial current,' for the lowest mark.

Hints.

At the outset two remarks may be made; first, the barometer rather foretels the coming weather, than indicates that which is prevailing; second, the state of the barometer for a day or two previous to the observation is the best guide to the coming weather. In other words it is not the actual height of the column, so much as the state of its motion that is to be relied upon in forecasting the weather. If the mercury has been much disturbed, expect unsettled weather no matter at what height it may stand.

Signs of the weather.

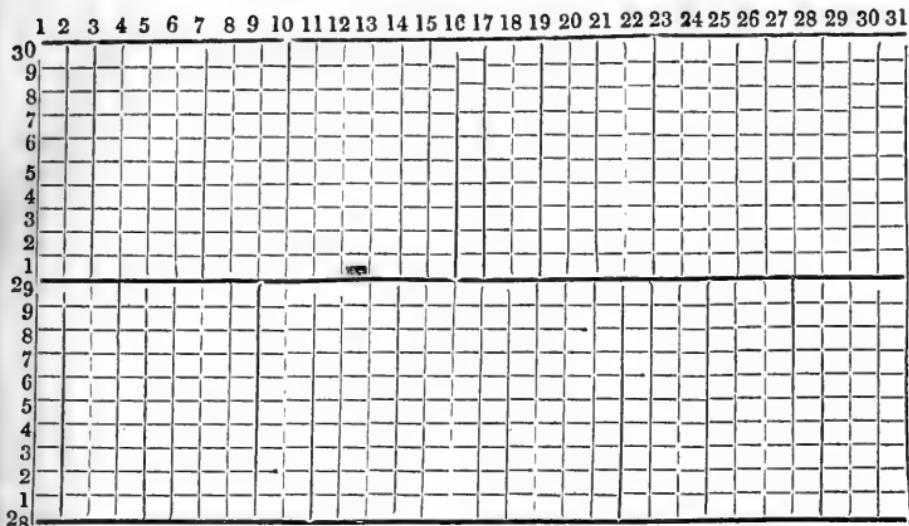
1. *Fine.*—A rosy sky at sunset—a grey sky at sunrise—a low dawn—soft-looking fine clouds—a light, bright blue sky—early flights of sea-birds—distant flights of land birds—dew—fog.

2. *Wet.*—Red sky at sunrise—greasy, rolled, ragged clouds—pale yellow sunset—small inky-looking clouds—misty clouds hanging on hills—low flight of swallows—unusually clear outline of hills—halos—unusual twinklings of the stars.

3. *Wind.*—Hard-edged oily-looking clouds—a dark blue gloomy sky—bright yellow sunset—unusual gaudy colours at sunset.

During great storms, the most dangerous period is generally a short time after the barometer begins to rise from the lowest point. The barometer falls lowest with storms from the S.E., S. or S.W.; and the greatest elevations of the column are with winds from the N.W., N. and N.E.

The following diagram exhibits a simple and clear method of keeping a register of the barometer from day to day.



SEPTEMBER, 1866. KING CROSS, HALIFAX.

	1st week.	2nd week.	3rd week.	4th week.	Means for the Month.
Barometer	28.864	28.894	28.938	29.010	29.609*
Thermometer (1).....	55 $\frac{1}{2}$	54 $\frac{1}{4}$	52 $\frac{1}{2}$	51 $\frac{3}{4}$	54.9
Maximum (2)	62	63	58	57	63
Minimum (3)	45	47	41	40	40
Range of Temperature	17	16	17	17	23
Mean Daily Range ...	8 $\frac{1}{2}$	7	9	9 $\frac{1}{2}$	8 $\frac{1}{2}$
Force of Wind (4) ...	0.8	1	1.1	0.2	0.8
Amount of Cloud (5)..	8	9	6	8	8
Days Rain fell	7	7	6	5	26
Rain	2 $\frac{3}{4}$ IN.	1 $\frac{1}{5}$	2 $\frac{1}{2}$	1 $\frac{1}{10}$	8 $\frac{1}{4}$
Ozone (6)	1 $\frac{3}{7}$	1 $\frac{2}{7}$	3	$\frac{1}{7}$	1 $\frac{3}{7}$
Humidity of Air (7)...	81	80	80	80	80
Easterly Winds.....	6	4	0	8	19
Westerly ,,,	15	16	21	13	67

* Reduced to sea level, and corrected for capillarity, index error, temperature, and diurnal range.

(1) In shade.

(2) i.e., greatest heat in shade during the day.

(3) i.e., greatest cold in shade during the night.

(4) The numbers represent pressure in pounds on the square foot.

(5) A cloudless sky is called 0 : an overcast sky 10.

(6) Scale 1 to 10.

(7) Complete saturation, 100.

JOSEPH GLEDHILL, F.M.S.

 Popular Geology.THE STRATA OF HALIFAX.

THE strata of our neighbourhood consist of Mill-stone Grit and Coal-measures. If we take our stand on Ringby-hill, or even on the roadside just under Ringby, we shall have a very good view of the country around Halifax. We shall see that the land slopes down from the heathy moorlands of Ogden and Warley, towards Ovenden and Halifax; and, if we neglect the deep valleys of Wheatley and the Calder, we shall see also that the whole country right across to the Ainleys and down to Elland is one plain gradually sloping to the south-east. The whole of this plain is capped with a thick deposit of sandstone rock. Along the edges of the above valleys numerous quarries are opened into it, and in some parts excellent building stone is obtained. The new Railway to Ovenden is being cut through it and very good sections may be seen at the town (under Mount Pleasant) and at Skircoat quarries. In fact wherever excavations are made in this plain, this gritty sandstone is met with. This sandstone rock forms the uppermost member of the Millstone Grit series and it is from 54 to 70 feet in thickness. The lowest bed of this rock may be seen reposing on a great thickness of shale, at Shroggs Wood, on the roadside leading to Wheatley. Below this grit-rock there is a great thickness of blue and purple shales highly impregnated in some places with oxide of iron, and interstratified with beds of grit-rocks and thin layers of impure limestone. The deep valleys of the Calder and its tributaries from Salterhebble to Hebden Bridge, and the Wheatley valley from Dean Clough to Brookhouse and the moorlands of Ogden, Fly, Oxenhope, &c., are composed of this very perishable shale. Atmospheric causes, such as rain, frost, wind, the carbonic acid of the air, &c., have doubtless done a great deal towards forming these valleys, for they act with great force upon these yielding shales, undermining the hard grit-rocks above, until they give way and fall into the valley below, where in course of time they become broken up and carried away by the waters. This breaking up of the grit-rocks is facilitated by the natural *fissures* by which all hard rocks are divided into blocks. When the shales underneath

have been worn away to a sufficient extent the whole thickness of the rocks above falls down leaving a perpendicular cliff. These cliffs form an interesting feature in most of our deep valleys. But very often the face of these rocks is hid by a mass of fallen *debris*, and in this case they will slope down into the valley with an angle of inclination varying with the depth and width of the valley. Any person who has watched the progress of the new line to Ovenden, will have seen what a mass of stone and rubbish had to be removed before they came to the face of the solid rocks, all along the edge of the valley on each side of North Bridge and Wood-side Bottom. Those who study the subject cannot fail to arrive at the conclusion, that the whole of this plain was at one time continuous, and instead of being as at present divided by these two valleys (the Calder and Hebble valleys) it was one great bed of sandstone rock. Hard and comparatively indestructible as these grit-rocks are, the weather-worn crags of Shroggs, Skircoat, Norland, &c., shew that even they undergo great changes. The sand and quartz of pebbles and wasted rock tell of the destruction going on, imperceptibly it may be to us, but still in the lapse of ages working a permanent change. And when we come to think of the vast period that has elapsed as Professor Ramsay says, since these rocks were formed, and that all the newer formations have been formed out of the waste of the older ones, we cannot wonder at the extent of the denudation. The whole thickness of the millstone-grit series in this neighbourhood is according to Professor Phillips, about 900 feet.

“MILLSTONE GRIT FOSSILS.” THE fossils found in these shales and limestone bands are chiefly marine shells of the genera *Lingula*, *Modiola*, *Pecten*, *Goniatite*, *Orthoceras*, *Venus*, &c. They occur very sparingly, and on account of the perishable nature of the shales, they are rarely found perfect.* In certain layers mostly composed of crushed Goniatites I have found the impressions of narrow plants similar to the Calamite but neither jointed nor fluted and probably they are like the shells, of marine origin. The sandstone rock contains fragments of fossil plants for they are, very rarely found perfect, belonging to the genera *Sigillaria*, *Stigmaria*, *Sternbergia*, *Lepidodendra* *Calamites*, &c., all of which occur more abundantly in the coal beds above. They are very thinly strewn in the grit-rocks and seem

* Some very good fossils have been found in the layer of limestone nodules which crops out in Crimsworth Dean and Hebden valley, but these strata are supposed to belong to the Yoredale rocks below the Millstone-grit.

to have been brought down to the sea in which they were deposited from a distance, by rivers and ocean currents. They are the first pioneers of that gigantic flora which reached its full perfection in the middle coal measures.

THE DIP OR INCLINATION OF STRATA. If we go into any of our quarries, or examine the surface of any exposed rocks we shall see that they are not exactly level, but that they incline in some direction or other. This inclination is called the *dip* of the strata. The general dip of the strata of this neighbourhood accords with Professor Phillip's observations, viz., about 3 degrees to the south-east, or as the miners say "it falls about one yard in twenty towards the ten o'clock sun." Thus while the grit-rocks occupy the high moorlands of Ogden and Warley, where they crop, or *strike* out towards the west, at an elevation of 1,450 feet above the level of the sea at Skirden Head, and other places, they gradually incline down towards Halifax, and disappear under the semicircular range of hills, of Ringby, Beacon, Southowram, Rastrick and the Ainleys, and at length just below Elland the Calder flows over them at a height of only 250 feet above the level of the sea. Here, we see, they have fallen 1,200 feet in about seven or eight miles direct south. They dip still more rapidly towards the south-east. I have given the above illustration of the dip of the strata because any person who wishes to study the subject may examine it easily for himself by taking a pleasant afternoon's walk from Halifax to Ogden Kirk, or from Halifax to Elland, without any other aid than an ordinance survey map. A hammer to detach specimens of rocks, and a clinometer compass to measure the dip, &c., are however indispensable for accurate observation.

The Lower Coal measures, occupy the slopes of the above range of hills and the valleys of Shibden and Mytholm, Cromwell Bottom and Brighouse. This series of beds consists of a great thickness of shale, interstratified with shelly rag and beds of coal, fire clay, and a few layers of ironstone, altogether nearly 600 feet in thickness. The following section of the Lower Coal measures, is taken from the Halifax Museum list (strata of Bank Top Pit.)

FLAGSTONE ROCK ABOVE		Feet.	Inchs.	Feet.	Inchs.
1	Shale and Rag	0	0	192	0
2	4 score yards Band Coal	0	0	0	6
3	Shale and Rag	0	0	77	0
4	48 yards Band Coal	0	0	0	6

		Feet.	Inches.	Feet.	Inches.
5	Black Shale	0	0	36	0
6	36 yards Band Coal	0	6	0	0
	Seat earth	6	0	6	6
7	Black Shale, &c:.....	0	0	104	6
	Shale with " Baum Pots "	3	0	0	0
8	Pecten Shale	0	3	3	3
9	Hard Bed Coal	0	0	2	3
10	Seat-earth or Ganister and Shales	0	0	31	0
11	Middle Band Coal	0	10	0	0
	Seat-earth	2	0	2	10
12	Stone, and Black Shale with Ironstone	0	0	12	0
	1st Hard Bands " <i>Unio</i> Beds "	4	0	0	0
	Black Shale.....	1	0	0	0
13	2nd Hard Bands do.	7	0	0	0
	Black Shale	1	0	0	0
	3rd Hard Bands do.	3	0	16	0
	Black Shiver Shales	2	0	0	0
14	Gray Shales.....	10	4	12	4
15	Soft Bed Coal	1	4	0	0
	Seat-earth	2	0	3	4
16	Band Stone	12	0	0	0
	Rag and Light-coloured Shale	18	0	40	0
17	Thin band of Shale containing " <i>Unios</i> "				
	Discovered at Whitegate last Spring, by Mr. F. A. Leyland	0	0	0	6
18	Light-coloured Shales	0	0	40	0
MILLSTONE GRIT BELOW.				580	6

This section agrees pretty nearly with sections taken at Catherine Slack and other places in these Lower Coal Measures. The lowest bed of these shales may be seen reposing on the Millstone-grit in the cutting near Elland Station. The whole of the strata from the soft bed coal to the grit-rocks were laid bare at Whitegate, last spring, while some men were digging a drain. Mr. F. A. Leyland happened to be going up Whitegate at the time, along with some friends, when by chance, he found a piece of a nodule, as light as wood, containing fossil shells. A few days after I met Mr. Leyland and he told me of his good fortune, and kindly volunteered to go with me to Whitegate. I called upon him the day after and examined the shells. They were " *Unios*," but as they are now thought to be of marine origin by many eminent authorities they are termed Anthracosia; and better specimens I never met with, not even in the Low-moor Ironstone beds, where they occur almost perfect. We went to Whitegate and after a long search I found a few compressed specimens,

imbedded in soft light-coloured shale, but not nearly so good as those found by Mr. Leyland on his first visit, which came out of the matrix quite plump and free. I searched the cutting from the top to the bottom but could not find the shells *in situ*. Those I found, had been thrown out of the drain about half-way between the soft bed coal and the grit. I visited the place afterwards several times, but could find no better specimens and very few even of the imperfect ones. No fossils belonging to this genus, have ever been found before in this neighbourhood, nor have I ever seen any account of their being found anywhere else, below the soft bed coal.* On account of the numerous coal and clay pits opened in this series of rocks, each particular bed is pretty well known and good sections may be obtained in many places. The only beds of coal worth working are the Hard and Soft bed coals, and these are worked at Bradshaw, Catherine Slack, Shibden, North and Southowram, and Elland. All these bands of coal have a bed of seat clay under them which is extensively wrought to make fire-bricks, tiles, &c., but that under the 36 yards band coal and middle band coal is considered the best, and it is worked in different places along the edge of the hills from the Howcans to Cinderhills and Elland. By far the most interesting part of these lower coal measures to the geologist, is that enveloping the hard bed coal. Over this bed of coal, there is a layer about three inches in thickness, almost entirely composed of pectens and other marine shells, and above that from three to five feet of shale containing round limestone balls called "Baum pots." These "Baum pots" are generally coated with iron-pyrites, and weigh from 10 to 100 pounds and sometimes more. They contain fossil shells such as Goniatites, Nautili, Pectens and Orthoceras, some of them being literally one mass of fossils, but owing to the great force required to break them open the shells are seldom got out perfect, and often a few broken specimens are the only reward for many bruises and hours of toil. The most perfect goniatites and nautili are found in the shale, *free* or in very soft "baum pots." This bed of shale contains many other fossil shells and the remains of fish, such as teeth, bones and scales, which have a beautiful polish and are as black as ebony. The floor of the Hard bed coal is composed of a peculiar rock called Ganister, unlike any other rock in the coal strata, but is found associated with the mountain limestone rocks. This Hard bed coal has been traced, by

* Mr. Leyland has presented his specimens to the Halifax Museum, where they may be seen and contrasted with others from Low-moor, &c.

means of the presence of these "baum pots" and pecten shale, from Leeds to Bradford and Halifax, to Huddersfield, Penistone and Sheffield, and to Lancashire on the other side of the Pennine Chain. Professor Phillips observes, "The uniform occurrence of these pectens and goniatites, through so wide a range, over one particular thin bed of coal, and in no other part of the coal strata, is one of the most curious phenomena yet observed concerning the distribution of organic remains, and will undoubtedly be found of the highest importance in all inferences concerning the circumstances, which attended the production of coal."

J. S.

Reports of Meetings, Observations, &c.,

HALEY HILL LITERARY & SCIENTIFIC SOCIETY, SEPTEMBER 13TH, 1866.

MR. JOHN WALKER IN THE CHAIR.

MR. TOOTHILL was proposed as a member of this Society.

MR. JAS. SPENCER exhibited Fossil Unios from four different strata of rocks in this district, viz:—from between soft-bed coal and millstone-grit, from above soft-bed coal Shibden, from Northowram ragstone, and from Low-moor Ironstone.

MR. JOHN WALSH exhibited Fossils, Gryphaea Incurva, and Belemnite from the Oolite shewing the Phragmacone. *Helix Aspersa*, *H. Nemoralis*, *Patella*, *Trochus Umbilicata*, &c, from Scarborough.

MR. JAMES CROSSLEY made some remarks on the habits of the Hawk tribe and exhibited eggs of the Merlin (*F.*

Æsalon) The Kestrel (*F. Tinnunculus*) and the Sparrow Hawk (*A. Nisus*—) the whole of which he had taken in the Hebden valley.

MR. D. BAXENDALE exhibited Catter-pillars of the Brown Tail Moth (*P. Chrysorrhæc*) and the White Ermine (*S. Menthastis*), also specimens of the following moths, the Bordered Kitten (*C. Bifida*) bred from larvæ taken at York last August, the Chamomile Shark (*Chamomillæ*) a pair of which were found on palings at Akroydon in July. &c.

THE CHAIRMAN announced that another volume had been received from the Ray Society, on *Cetacea*.

Babby Burds.

I wandered out one summer's morn,
Across a meadow newly shorn;
Th' sun wor shining bright an' clear,
And fragrant scents rose up i'th' air,
And all wor still.

When as my steps wor idly roving,
I coom upon a scet soa loving
It fill'd my heart wi' tender feeling,
As daan I sank beside it kneeling,
O'th' edge o'th' hill

It wor a little sky larks nest,
And two young babby burds, undrest,
Wor gaping wi' ther beaks soa wide,
Calling for mammy to provide,
Then morning's meal.
And high aboon ther little hooam,
The saand o' Daddy's warbling coom,
Ringing soa sweetly o' my ear,
Like breathings thro' a purer sphere,
He sang soa weel.

Ther mammy a few yards away,
Wor hopping on a bit o' hay,
Too feard to come, too bold to flee,
And watching me wi' troubled e'e,
Shoo seem'd to say;—
"Dooant touch my bonny babs young
man,
Ther daddy does the best he can
To cheer you with his sweetest song
And those 'll sing as weel ere long,
Soa let 'em stay."

Tha needn't think I'd do 'em harm,
Comeshelter'em and keep 'em warm,
For I've a little nest mysel,
And two young babs, I'm praad to tell
'Ats precious too;—
And they've a mammy watching thear
'At howds them little ens as dear,
And dearer still, if that can be,
Nor what thease young ens are to thee,
Soa come,—nah do.

A'a well,-tha'rt shy, tha hops away,-
Tha does'nt trust a word I say,
Tha thinks I'm here to rob and
plunder,
And I confess I dunnot wonder,
But tha's noa need;—
I'll leave you to yoursel,-good bye,-

For now I see your daddy's nigh,
He's dropt that strain soa sweet and
strong,
He loves you better nor his song,
He does indeed.

I walk'd away and sooin my ear,
Caught up the saand o' warbling clear
Thinks I they're happy once agean,
I'm glad I didn't prove soa mean,
To rob that nest;—
I shall goa hooam wi' leeter heart,
To mend awr Johnny's little cart,
(He allus finds me wark enough
To piccen up his brocken stuff,
For ivery neet.)

And Sally, a' if you could see her,
When I sit daan to get my teah,
Shoo puts her dolly o' my knee,
And makes me sing it "Hush a bec"
I'th' rocking chair;—
Then begs some sugar for it too,
What it cant aight shoo tries to do,
And turning up her cunning e'e,
Shoo rubs th' doll maath an'says you see,
It gets it share.

Sometimes I'm rayther cross I fear,
And start a little trembling tear,
'At like a drop o' glittering dew,
Swimming within a wild flower blue.
Falls fro' ther e'e:
But as the sun in April showers,
Revives the little drooping flowers,
A kind word brings ther sweet smile
back,
I raylee think my brain ud crack,
If they'd to dee.

Then if I love my bairns soa weel,
May not a sky larks bosom feel;
As mich consarn, for th' little things,
At snooze i'th shelter which her wings
Soa weel affords ?
If folk wod nobbut bear i' mind,
How mich is gained by being kind,
Ther's fewer breasts wi' grief ud
swell,
And fewer folk ud thoughtless mell
Even o' th' burds.

Lord Macaulay.

A PAPER READ TO THE MEMBERS OF THE

HALEY HILL LITERARY & SCIENTIFIC SOCIETY, DECEMBER 14TH, 1865,

BY MR. JONAS STOTT,

MASTER OF ST. MARY'S SCHOOL, WAKEFIELD.

LORD MACAULAY was of Scottish descent. His grandfather John M'Aulay was a minister of the Church of Scotland at Cardross, a parish on the banks of the Clyde, below Dumbarton Castle. Dr. Johnson on his way to the Hebrides, passed an evening with him, and the conversation they had is related by Boswell.

Zachary M'Aulay, his son, like many other of the Scots came to England and sought opportunities here for his industry and enterprise which the quiet banks of the Clyde did not then afford. In 1798 married Selina Mills, daughter of a Bristol merchant, a lady of remarkable ability and who had been educated at a school kept by the gifted Hannah More.

Thomas Babington Macaulay was born on the 25th of October, 1800, at Rothley Temple, Leicestershire, the seat of his uncle after whom he was named. The child was surrounded at home by persons whose moral and intellectual gifts were of the highest kind, and who exerted a powerful influence for good on his future. I remember seeing when a boy a picture of the infant Shakespeare, surrounded by fairies, who were represented as endowing him with the gifts and qualifications necessary to a great poet and dramatist. Thomas Babington was thus surrounded, not by imaginary fairies, but by men and women who by self conquest and a noble devotion to all that was high and ennobling have left a name that will "smell sweet and blossom in the dust." In his mother he had the example of as good and christian a spirit as ever breathed. Hannah More who had now given up her school, who held a high place in the world of letters, as sprightly at 75 as at 25, was a regular visitor at Macaulay's home. His father belonged to a society which Sydney Smith has sneeringly called

the Clapham Sect. This society was composed of men whom England and humanity will ever hold in high esteem; for they were united in a holy bond to remove a huge wrong, to wipe off what was then the foulest blot on England's fair escutcheon—the traffic in human blood; and it is to the efforts of these men that this infamous wrong was removed so far as England was concerned, and that we can now boast of being foremost in the work of negro emancipation.

Pen and pencil have made us familiar with Johnson and his contemporaries. Who will sing the Clapham Sect? Let us for a moment call up a few of their names—

We are in the house of Henry Thornton, a wealthy banker, who for many years represented Southwark in parliament. Here in a saloon projected and decorated by William Pitt, in his leisure hours, the guests assemble. There in the centre is William Wilberforce, the apostle of the brotherhood, with a body so small and limbs so spare that one wonders how his mighty soul was compressed within him. He is in glorious spirits to-night. After an electioneering struggle, the remembrance of which is still alive in Yorkshire, and which is said to have cost the defeated candidates £200,000 William Wilberforce is now again M.P. for the county of York. He is fairly abandoned to-night to the current of his own joyous fancy, for one step in his life-labour had been gained, the act for the abolition of slave trade had become the law of the land. William Smith, M.P., for Norwich is among the group.

In the corner yonder sits Granville Sharp (in his letters to his friends he often facetiously signed himself  a man of chivalrous

goodness—stern to indignation against every form of wrong—originally a draper's apprentice he left employment for a clerkship in the Ordnance-office, and it was while occupying this comparatively humble situation that he carried on in his hours of leisure the work of negro Emancipation. For two years he gave all his spare time as well as hours snatched from sleep to the study of the laws of England affecting personal liberty—wading through an immense mass of dry and repulsive matter, without an adviser, assistant or instructor. In fact he could find no lawyer favourable to his undertaking. He had his reward. For at the close of his labours he thanked God that he could find not a single law on the statute book which justified the enslaving others. He now prosecuted his labours in

the English Courts, and had the supreme satisfaction of hearing Judge Mansfield declare from the bench, that as soon as a slave sets his foot on English ground he becomes free. In his late years prophecy much absorbed his attention, and he is said to have mourned over the degeneracy of the statesman of his time because Charles Fox had never heard of Daniel's little horn.

Among the group too may be seen the Rev. Thomas Gisbourne the naturalist—who woed the wood and glade—who loved nature with a devotion second only to that which he felt for those over whom he had pastoral charge.

Charles Grant, an autocrat in Lombard-street is here, and Lord Teynmouth, set free from the viceregal cares of governing India, seeks the repose and companionship of those around him.

Yonder is the accomplished Macintosh, whose fiery eloquence is hushed by the chastening yet kindly influences around him—near him is a face never to be mistaken—then plain Harry Brougham.

Retired in the corner there are 3 youths, eagerly listening to their elders with feelings of shyness and pride.—One of these died Professor of Modern History at Cambridge—the 2nd lives as the active and eloquent Bishop of Oxford, and the 3rd Thomas B. Macaulay, the greatest Essayist and Historian of this and perhaps of any other country.

Just one more picture and my list is complete. Zachary Macaulay. He was robust, and somewhat of an ungainly figure—he was slow of speech—but his “understanding was proof against sophistry and his nerves against fear.” In that chosen circle none was more honoured or loved with such enthusiasm as he.

An eye-witness of the abomination of slavery in Jamaica—a long resident in Sierra Leone with the slave trade flourishing around him. He became impressed with the conviction that he was called to do battle against this giant *sin*. For 40 years he consecrated every faculty to this one purpose. Sacrificed everything the world holds in esteem to its furtherance, and like his brother apostle Wilberforce he lived to see his life-purpose accomplished. Such were some of those whom Macaulay was brought into contract with in early life.

We are indebted to Mrs. Hannah More for an account of his boyhood. When he attained the age of 8, she rejoices “that his classicality had not extinguished his piety,” and adds that “his hymns were extraordinary for a baby.” In his 12th year Macaulay’s future education was confided to

Mr. Preston, a clergyman who kept a private school in the neighbourhood of Cambridge. The choice seems to have been very fortunate, for under Mr. Preston's tuition, he became a sound and good scholar—and here under his fostering care he imbibed that love for the great writers of Greece and Rome, which remained with him to the end of his life. While at school he wrote his epitaph on Henry Martyn the missionary, and a defence of novel reading, both of which would do credit to far more mature years.

In his 18th year he left Mr. Preston's school and proceeded to Cambridge. His career there was not so brilliant as his friends anticipated. He had not been prepared for the contests of the academic arena by the preliminary training which a public school affords—and he had a strong dislike for mathematics—the chief study at Cambridge. Twice however he carried off the Chancellor's medal for English verse; in 1819 for a poem on Pompeii, and 1821 for another on Evening; both of them pieces far above the average mark of prize poems. In 1821 he was elected to the Craven scholarship, and in the following year after taking his B.A. degree he was chosen Fellow of his College. He was greatly gratified at this success. First he was greatly attached to Cambridge, and he therefore regarded highly the honours she bestowed, and the independent provision attached to the Fellowship enabled him to enter on his professional career.

At Cambridge his literary career began in his contributions to Knight's Quarterly Magazine, conducted by Charles Knight—‘Good Knight’ as Jerrold called him—a worthy labourer in the literary vineyard as well as a patron and judicious councillor to youthful authors.

In a series of papers, in prose and in verse, published in 1823 and 24, he gave the world indications of the power within him,—indications of that boundless information which almost embraced the whole circle of knowledge, the marvellous vividness in portraying men and things, and that fecundity of illustration which so much entrances and surprizes us in his later years. As a specimen of the verse he contributed I will give you a few verses from his battle of Naseby,—

“ The furious German comes, with his clarions and his drums
His bravoes of Alsatia and the pages of Whitehall ;
They are bursting on our flanks, grasp your pikes, close your ranks ;
For Rupert never comes but to conquer or to fall.

They are here ! They rush on ! We are broken ! We are gone !
 Our left is borne before them like stubble on the blast,
 O Lord, put forth thy might ! O Lord defend the right
 Stand back to back, in God's name, and fight it to the last.

Stout Skippon hath a wound ; the centre hath given ground
 Hark ! hark—What means the trampling of horsemen on our rear ?
 Whose banner do I see, boys ? 'Tis he, thank God, 'tis he boys.
 Bear up another minute ! brave Oliver is here.

Their heads all stooping low, their points all in a row
 Like a whirlwind on the trees, like a deluge on the dykes
 Our Cuirassiers have burst on the ranks of the accurst,
 And at a shock have scattered the forest of his pikes.

Soon after he was invited by Jeffery, the editor of the *Edinburgh Review* to contribute to that periodical. Then followed that series of brilliant and inimitable essays which were poured out in rapid succession for the space of twenty years. The first of these was his essay on Milton. In his late years he spoke deprecatingly of this performance—"that it was overloaded with gaudy and ungraceful ornament, and contained scarcely a paragraph which his matured judgment approved." Not such was the verdict of the public who read it. And indeed if a literary performance is to be judged by the influence it exerts upon others—by the power it exerts over the opinions of those who read it—then his essay must be regarded as one of his greatest efforts. Cromwell and the commonwealth had been held up to universal scorn by nearly all the historians and political writers from the 17th century downwards—and the hasty and uncharitable judgment found a place even in the Prayer-book. Macaulay nobly defended Cromwell in his essay, and in such a way as to carry conviction in the minds of all who read it. Educated men do not now regard Cromwell as our forefathers did, and as Pope has described him—and this change in public opinion was in the first instance mainly owing to Macaulay's essay on Milton. In this defence he added no new historical materials—he added no new facts—but by his skill as a logician, and in noble rhetoric, he made those materials assume a form which apparently they had not before.

Macaulay was not a student of nature, and his images and figures are rarely drawn from external objects. He found in books the images he sought, and the Bible was not omitted. From childhood he was a diligent student of the bible—his home was the abode of the Evangelical Alliance, and he always seems to linger longer and dwell with peculiar pleasure on images taken from the sacred volume. His comparison of Lord Bacon to Moses standing on Mount Pisjah may

be taken as an illustration. After speaking of the utter barrenness of the ancient systems of philosophy, and the fruitful results which had accompanied the acceptance of the Baconian philosophy he says—“There we see the great Lawgiver looking round from his lonely elevation on an infinite expanse—behind him a wilderness of dreary sands and bitter waters in which successive generations have sojourned, always moving, yet never advancing, reaping no harvest, and building no abiding city; before him a goodly land, a land of promise, a land flowing with milk and honey. While the multitude below saw only the flat sterile desert in which they had so long wandered, bounded on every side by a near horizon or diversified only by some deceitful mirage; he was gazing from a far higher stand, on a far lovelier country, following with his eye the long course of fertilising rivers, through ample pastures, and under the bridges of great capitals, measuring the distance of marts and havens and portioning out all those wealthy regions from Dan to Beersheba—

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It is told of Macaulay that at a dinner party he named all the senior wranglers of his University for a long number of years, and related the history of each after they left the University. He electrified the House of Commons in a speech he made on the Copyright question, by naming all the great English authors and their respective ages at the time their chief works were written. He is said to have been able to repeat all the earlier books of *Paradise Lost* without a single omission. And Thackeray who knew him well said that he read twenty books to write a sentence and travelled 100 miles to make a line of description. His memory was so great that some have not scrupled to call it omniscient. Whence arose this enormous development of the memory? Partly no doubt from natural endowment—but it derived its greatest power from the patient industry with which it was cultivated.

He entered the House of Commons on the eve of the Reform bill agitation as member for Calne. His speeches in favour of Reform secured his election for Leeds in 1832. In the same year he became secretary to the Board of Control. In his official capacity he made a speech (1834) on the renewal of the Indian Charter—a speech which so favourably impressed Lord Melbourne’s government that they offered and he accepted a seat in the new council which was to legislate for India. Many have regretted that he was tempted away from literary pursuits to legislate for a distant country. Prudential motives had much to do in influencing his

determination. The career of a man of letters even sixty years ago was not a promising one, and there can be no disgrace, nay it is a great honour for a man to seek to place himself above the reach of want. Macaulay was not rich, and he wished to make a provision which might place him above dependence either upon office or his literary labours. He remained in India two years. While there he busied himself about the effect of English rule in India—the aspects of its scenery, and the manners and customs of the natives, thus qualifying him in no ordinary degree with materials from which he wrote two of his most brilliant essays, those on Lord Clive and Warren Hastings. On his return to England he was elected M.P. for Edinburgh—but at the next general election he was rejected partly from circumstances which need not be mentioned now, honourable though they were to him, but chiefly I should say from the plain blunt manner he dealt with his constituents. The following letter addressed to Mr. Black will explain what I mean—

“I am much gratified by what you say about the race cup. I had already written to Craig to say that I should not subscribe, and I am glad my determination meets with your approval. In the first place I am not sure that the object is a good one. In the next place, I am sure that by giving money for such an object, in obedience to such a summons, I should completely change the whole character of my connection with Edinburgh. It has been usual enough for rich families to keep a hold on corrupt boroughs by defraying the expense of public amusements. Sometimes it is a ball; sometimes a regatta. The Derby family used to support the Preston races..... But these are not the conditions on which I undertook to represent Edinburgh. In return for your generous confidence I offer faithful parliamentary service and nothing else..... I should feel this if I were a rich man. But I am not rich..... If our friends want a member who will find them in public diversions they can be at no loss. I know of twenty people who, if you will elect them to Parliament will gladly treat you to a race and a race-ball once a month.”

In 1842 appeared his lays of early Rome—a series of simple ballads on subjects connected with the ancient history of Rome. The great master of prose showed himself at home with this simple kind of poetry. Ballad poetry was the delight of his boyhood, when he would repeat it for hours together. Later in life he knew an enormous quantity of ballad poetry, past and present—and it is impossible now to say how much Macaulay was indebted for ballad poetry for those minute traits of

domestic life which we find described in his history. It is said that on one occasion when returning from a shop where he had been purchasing ballads, he was mistaken for a ballad singer and was called upon to sing by the passers by. He had too the faculty of embuing himself with the feelings and passions of others—even with those he had no sympathy with, and of reproducing them in language so fervid, lively, and forcible that at first sight the sentiments appear to have sprung from his own heart. His song of the Radical, and the march of the Cavalier to London are instances of this. Macaulay was further fitted as a writer of ballads by the magnificent power of word-painting. Above all ballad poetry requires life—life well sustained—vigorous life—words which strike home and rivet themselves on the heart and memory.

But it is as the historian that Macaulay will be longest remembered. The first volume of his history appeared in 1849. In 1828 we find him stating that “good histories we have none. But we have good historical romances and good essays. Then he thus describes what a good history should be “To make the past present, to bring the distant near, to place us in the society of great men, or on the eminence which overlooks the field of a mighty battle, to invest with the reality of human flesh and blood beings whom we are too much inclined to consider as personified qualities in an allegory, to call up our ancestors before us with all their peculiarities of language, manners and garb, to shew us over their houses, to seat us at their tables, to rummage their old-fashioned wardrobes, these parts of the duty which properly belong to the historian have been appropriated by the historical novelist. On the other hand to extract the philosophy of history, to direct our judgments of events and men, to trace the connection of causes and effects; and to draw from the occurrences of former times general lessons of moral and political wisdom has become the business of a distinct class of writers.”

That he has succeeded in uniting these two parts of history is best known to those who have read his history. Macaulay has at least made history a popular and interesting study—his magic genius has given life to the details of past events—his historical pages charm and entrance the reader like a romance. But it is impossible to tell the amount of labour he bestowed on his history to produce this. The number of old, forgotten books, pamphlets and ballads he must have consulted must have been enormous. Nothing has surprised and delighted the student of history as the vividness with which he has described historical characters. From the most scanty

materials he has described Halifax, Temple and Newcastle as vividly as if he had lived with them in Holland house. It is to be feared however that Macaulay's love of producing striking pictures has led him occasionally into exaggeration.

Macaulay was constitutionally weak, and he had only reached the pinnacle of fame by the publication of his history when his health began to fail. In 1856 he resigned his seat in parliament, and in the following year at the recommendation of Lord Palmerston he was created a peer of the realm. He was the first who was made a peer merely for his literary abilities. and no man more merited the honour. The honour so well deserved, and given with the approbation of all his countrymen, was after all merely nominal for he died at the close of the year 1859. He was buried in Westminster Abbey, in the Poets corner on the 9th January, 1866. Here Macaulay loved to sit and muse on the memories of the great ones who lie there—and he had often expressed a hope that among them he might be interred.

The Land and Fresh Water Mollusks,

FOUND IN THE NEIGHBOURHOOD OF HALIFAX

THE nomenclature here adopted is that of Mr. Gwyn Jefferys, in his recent work on British Conchology. In all cases, unless otherwise specified, the localities are verified by the writer, and specimens from each, are now in his cabinet.

Sphaerium corneum. Salterhebble basin, and other weedy parts of the canal.

Sphaerum ovale (*S. pallidum*, Gray). I am told that this species has been met with several times near Brighouse. Can any of our conchologists verify this?

S. lacustre. Common in a stagnant ditch, known as a part of the old canal (this locality is now destroyed); Canal Stern Mills.

Pisidium fontinale, var. *cinerea*. Ditch on the road to Brighouse.

P. pusillum. Ditch near Railway-bridge, Stern Mills.

P. nitidum. Pond, Willow Lodge (1855).

Anodonta cygnea. Salterhebble basin, abundant.

Anodonta anatina, var. *ponderosa*. do., rare.

Bythinea tentaculata. Canal—especially at Salterhebble.

Valvata pisinalis. do. do.

Planorbis albus. Canal at Salterhebble; also in a pond near Stern Mills.

P. carinatus. Canal, locally distributed.

Physa fontinalis. A single specimen was found near Brighouse, a few years ago, by Mr. Ibbetson Walker.

Limnaea peregra. Everywhere, varying in size, shape, and as according to locality.

L. peregra, var. *ovata*. Canal.

L. peregra, var. *labiosa*. Rare.

L. auricularia. Small specimens in a pond at Willow Lodge.

L. palustris. Occasionally in the canal. Very fine in a pond at Siddal; some specimens from this locality are peculiarly distorted—excoriated and decorticated, the result of chemical actions.

L. truncatula. Ponds, and in almost every part of the canal. It is occasionally found at a great distance from water.

Ancylus fluviatilis. On stones in a ravine at Norland, but extremely small.

Arion ater. Common everywhere.

A. hortensis. Near Sowerby bridge.

Limax marginatus. Field near Wellhead.

L. flavus. Too common in most cellars, where it seems to have a particular fondness for roast-beef.

L. agrestis. Gardens and fields, everywhere.

L. gagates. A single specimen in Shibden in 1859.

Succinea putris. Canal bank, Salterhebble, rare.

Vitrina pellucida. Maple Dean Clough, not common.

Zonites cellarius. Common.

Z. alliarius. Do.

Z. nitidulus. Not uncommon in many places.

Z. purus. Locally distributed, Norland.

Z. Excavatus. Some years ago, this species was not uncommon in Spring Wood, the locality has since been destroyed.

Zonites crystallinus. Common.

Z. fulvus. Near Wood Hall, rare.

Helix nemoralis. North Dean, common.

H. rufescens. Common.

H. Caperata. Locally abundant.

H. rotundata. Common.

H. pygmaea. Three examples were taken in Maple Dean Clough, by Mr. Cash. This species is often overlooked on account of its minute size.

H. pulchella. Wellhead; King Cross and Norland.

Cochlicopa lubrica. Common.

Achatina acicula. A dead example in Maple Dean Clough, some five or six years ago.

Carychium minimum. Not uncommon in Maple Dean Clough.

G. H. P.

- George Henry Park.

The Winds and the Barometer.

There are but few old people whose daily labour have kept them much in the open air, who have not some pet theory about the dependence of the weather upon the moon, or stars, or some celestial phenomena. Now, it is not, perhaps, saying too much to assert, that there is not the slightest foundation for the almost universally assumed relation between the weather and the changes of the moon. This is the result of careful scientific observations extending over a long series of years. It is enough to refer to the labours of Arago, Toaldo and Schübler, in support of this assertion; and those who wish to see how the observations were conducted and the results obtained, will find a useful summary in Dr. Lardner's "Weather Prognostics."

Other observers, with some claim to scientific training and careful research, have endeavoured to forecast the coming changes of the atmosphere by the variations of the barometer alone. That this is far from satisfactory the result of repeated endeavours has fully shown.

Others again, long familiar with the fearful storms of the Indian and Chinese seas, accustomed daily to take accurate scientific observations both meteorological and astronomical, have striven to connect the great disturbances of the atmosphere with the position of the moon in her orbit in relation to the earth we inhabit. This is called the Lunar Theory, and as propounded by Mr. Saxby in late years, is known under the title "Saxby's

weather system." Of this system we shall have something to say in a future paper.

Lastly, perhaps the majority of the unscientific observers of the weather, in their attempts to divine its future changes, take into consideration, not only the moon, the barometer, and the general appearances of the sky, but also the wind prevailing at the time. Now it is to this numerous and observant class that we shall say a few words, in the hope that we may be of service to them. We shall begin by laying down a few rules deduced from long series of the most accurate investigations by eminent meteorologists. It is enough to mention the names of Dove, Herschel, Tuitelet and Tampadius, in this connection. In this way those who interest themselves in the weather can put these rules or laws to the test before we come to their scientific explanation in a future paper. Here then are the laws of the weather as interpreted from the variations of wind and barometer. For distinctness they are thrown into the form of short rules.

1. Since the Southerly (S., S. W., W) winds are warm, light, and moist and the Northerly (N., N.E., E) dry, cold and dense, the latter appear first in the lower strata of the atmosphere, while the former usually exist in the upper strata some time before they are felt below. Hence, if the wind shifts from S. to N. through W., the barometer rises and the air becomes colder; and we may fairly predict heavy snow in winter, sleet in spring, and thunderstorms in summer. A cooler air will follow.
2. If the wind vary from N. to N.E., we may look for clear weather, dry air and high barometer. In winter intense cold will follow attended by great clearness of the atmosphere.
3. If the barometer now begins to fall, the wind will get round to the E.; the deep blue sky becomes dotted and then covered with thin dull-white clouds, indicating the arrival of the warm southerly wind in the region of the clouds.
4. Should the barometer now fall rapidly, the snow will turn to rain, a thaw sets in, and the wind goes from S.E. to S. and S.W.

Perhaps it will be useful at this point to describe the indications of the setting-in of the southerly current after the Polar wind has prevailed some time. The transition from the dark clear blue sky due to the latter is very gradual, well-marked, and interesting. Fine delicate lines and streaks of white cloud first appear in the lofty regions of the atmosphere, and often assume the most beautiful forms; sometimes long filmy lines or columns, then, if a slight puff of wind should agitate them, they present

the well-known wispy appearance of the clouds; soon they change into a more extended sheet of white clouds and in a few hours or days they overspread the whole face of the sky. The fine lofty streaks first seen and which consist not of vapour, but of fine spiculae of ice, are called Cirrus clouds or Cirri; while the extended sheets are named Cirrostratus clouds. It is in the former clouds that the beautiful halos of the sun and moon are formed. When these lofty Cirri present the appearance of feathers shooting out from their sides, they show that the direction of the upper wind is not quite constant.

5. Hence the long arched Cirri are a sure indication of wet weather; while the feathery form is a less certain sign of rain.

6. We frequently see these lofty thin clouds break up into small round lumps of clouds called Cirro-cumuli. In some countries they are called Lambs and Sheep; we call them fleecy clouds. In the south of Europe they are a sign of rain. This breaking up of the Cirri is caused by a warm current of air ascending from below.

7. When E. and N. winds have lasted a long time in summer, with dry weather, and a moist wind sets in, its vapour is condensed on the particles of dust in the air, and the air thus becoming heavy sinks to the surface. Now air under such circumstances is always very clear; the distant hills appear quite close, distant waterfalls are heard distinctly and we have 'a good hearing day.' These are infallible signs of rain; and the rain comes from the W. side. Hence also, a clear sunset is a proof that there is no rain coming from that quarter for some time and a sign that fine weather is probable,

8. In the evening the air ceases to ascend, the clouds fall to a lower level and are dissolved in the warm air below. Nothing, however, can be predicted for the following day, from this phenomenon above. The French have a proverb which may be they expressed in jingle:—

Weather that clears up at night,

Will not bring a morning bright.*

9. If the S. wind sets in suddenly in the upper strata in winter, rain begins to fall at that level and is frozen as it falls. The ground is then covered with glazed frost. This is usually followed by a storm from the S.W., and a rapid fall of the barometer.

10. In winter, if rain come in the W. wind and the barometer rise, the rain will turn to snow. If snow fall with an E. wind and a falling barometer, it will turn to rain.

11. Should the wind shift to N. going by the W., in spring, expect

* Temps, qui se fait beau la nuit

Dure peu quand le our luit.

the weather to clear up somewhat suddenly and sharp frosts to set in at night.

12. *Thunderstorms*—(a) When these come up with an E. wind, and the barometer falls, the air is not cooled. We then very properly say, 'it is sultry, and we shall have another storm.'

(b.) If a thunderstorm comes from the W. the barometer begins to rise, and the air is cooled.

(c.) Should several thunderstorms follow each other from the W. they usually come successively from more northerly points.

(d.) When thunderstorms come from the W. we usually see an upper sky covered with fine thin clouds and undisturbed by the commotion below. Observation will teach us that the wind at the surface will be nearly at right angles to the direction of the upper current as indicated by the lofty cirri.

13. During continued bad weather, the vane oscillates between S.W. and W., and the barometer fluctuates only to a slight extent. These are the indications of the presence of the true equatorial current.

14. If the barometer rises rapidly, it is the result of the meeting of these northerly and southerly winds. They have met and stopped each other's progress, and a severe storm is sure to follow.

15. If the barometer then falls very rapidly, it shows that the S. wind has prevailed in the conflict, and that the danger is now very near.

16. The meeting of a cold and warm wind, in winter, is indicated by a high barometer and a thick fog. If the northerly wind prevails severe cold will follow; if the southerly, the fog will disappear.

17. If the barometer is much agitated, but no disturbance in the atmosphere is apparent, a storm is raging beyond the horizon.

18. If in winter the southerly warm current prevails over a large extent of country, the barometer is low and the air is soft and mild. When this occurs, be sure that the winter is very severe and the barometer high somewhere not far away.

For most of the above observations we are indebted to Professor Dove, of Berlin. The subject will be found fully treated by that eminent meteorologist in his "Däs Gesetz der Stürme," of which an improved edition has been issued very lately.

In our next paper we propose to set forth the views of Dove on the causes of the changes of the wind in England, in connexion with the indications of the barometer or weather-glass.

J. G.

The Weather of 1865.

January.—There was much snow at the beginning of the month. In the north it was generally about 6 inches deep, and it extended even to Cornwall. Snow also fell heavily on and after the 25th in many parts of the country, the average depth being about 9 inches. In south Wales the fall was greater than any during the past 40 years. The number of days snow fell in Halifax during this month was 13. Rain fell on 8 days. The weather was stormy on the 4th, 5th, 6th, 8th, 9th and 10th; and on the 14th a violent storm from the S. swept over the whole country doing much damage. Hail fell once.

February.—There was a little lack of water in the north-western counties this month; much of it fell as snow. The heavy snow at the end of January had scarcely disappeared when most parts of England and especially the northern counties and Scotland, were again coated 8 inches thick. Many lives were lost and railways blocked; and the losses in cattle and game were unusually great. The game suffered more than in any winter since 1838. Snow fell on 11 days in Halifax, and rain on 10 days. Hail fell on 3 days. A severe storm passed on the 18th and 19th from the N. W., bringing hail, rain and snow; it was highest from 7 to 9 a.m., on the 19th.

March.—Temperature and rainfall rather below the average. A good deal of snow fell during this cold, blustering month. Snow fell on 11 days; rain on 11, and hail on 2 days. The 4th and 5th were windy and wet; and a gale of wind passed on the 19th and 20th. On the 20th the aurora borealis was seen in the E. N. and W., from 8 to 9 p.m., it was seen also in Westmoreland.

April.—The rainfall was very small, mostly falling in the middle of the month. Very little fell after the 20th. Spring, or one might almost say summer, set in on the 9th, with a temperature of 80° in many places. This high temperature recurred towards the end of the month. The wind was high on the 6th and a thunderstorm visited us on the 12th, a very hot day. Rain fell on 10 days, and thunder was heard twice.

May.—The rainfall was above the average almost everywhere. Most of it fell in thunderstorms, especially on the 22nd. Much damage was done by the floods. Thunder or lightning, or both, occurred here on

the 21st, 22nd, 23rd and 28th. A storm passed on the 30th. Rain fell on 19 days; hail once.

June.—Very fine, hot, dry month; no rain fell from the 12th to the 22nd, and very little from the 5th to the 29th. There was a great scarcity of water in this neighbourhood. Rain fell on 5 days.

July.—Another hot month, but generally wet. Frequent thunderstorms occurred with heavy rain. Damp fell on 18 days, showers on 11. Thunder and lightning occurred on 5 days.

August.—A wet month, interrupting the harvest. The heaviest fall was on the 23rd; much also fell on the 1st, 2nd and 3rd. Very large hailstones fell during a storm at Thornton. Rain on 16 days, and thunder and lightning on 3.

September.—A remarkably dry, fine month. In England only about three slight showers fell, viz., on the 2nd, 9th and 20th. At 129 stating the fall of rain was less than one-tenth of an inch; and at 48 no rain fell at all. The highest temperature was 77°; the lowest 43°.

October.—It was generally fine till the 7th, when a wet period set in over almost the whole country. The monthly totals of rainfall were very large, even for October which is the wettest month in the year. The contrast in this respect between September and October in this year was remarkably great. In many places the rain amounted to more than 30 per cent. of the entire yearly fall. Rain fell on 22 days. Highest temperature 66°; lowest 31½°.

November.—The rainfall was near the average; the greatest falls being during the heavy gales. Serious floods resulted in Ireland in the last week of the month. On the 22nd the pressure of the wind rose to 22 lbs. per square foot; on the 24th to 26 lbs. Rain fell on 6 days. Highest temperature 51°; lowest 32°.

December.—The month was mild and generally fine. Most of the rain fell in the first and last week. On the 29th the force of the wind was 20 lbs., and on the 30th it rose to 30 lbs. for a few minutes. From 6 to 9 a.m. on the 31st the rain was very heavy. Rain fell on 15 days; hail on two days. Highest temperature 53°; lowest 26°.

Rosalind.

The river-wave goes by
 In plaintive undertone ;
 The dark-branched pine doth groan ;
 I' the gray old tower, on high
 Anon the lone owl cryeth
 For lonesome night ; soft sigheth
 The willow making moan ;
 In dying whisper dieth
 The sweet faint even-wind
 O'er the grave of Rosalind,
 So low, and still, and lone.

I' the churchyard melancholy,
 Over the mouldering mould
 The yew his dark leaf flingeth ;
 Even with fingers cold
 Sheds dew-cool down the wold ;
 And the full moon rises slowly,
 Slowly the heaven she wingeth
 'Mid cloudlets silver-lined ;
 Like a sainted One she bringeth
 Her light so calm and holy
 Over the grave, where lowly
 Lieth lost Rosalind.

J. F.

I Love the Little Robin.

I love the little Robin
 With its bosom cherry red,
 It brings sweet treasures to my heart
 And golden dreams long fled,
 It wakens scenes from childhood
 With all its lovely flowers,
 And peaceful joys so sweet and fair
 From those delightful bowers.

I love to hear its music
 In the woodlands far away,
 When the bonny hawthorn's blooming
 And buttercups are gay,
 When softly sings the linnet
 Within the sylvan shade,
 And green leaves flutter in the wind
 In nature's sweets arrayed.

I love to see it peeping
 From its nest beneath the hill,
 Where the long wild grass is growing
 Beside the woodland rill,

Surrounded by sweet blossoms
 That scent the passing gale,
 Where its gentle mate is singing
 Its sweet but tender tale.

I loved it in my childhood
 When it sung upon the wall,
 Beside the rustic cottage door
 Close by the waterfall,
 Where oft my mother led me
 And bade me listen there,
 To sounds that filled my youthful heart
 With pleasure sweet and fair.

I've seen it in the spring time,
 And I've listened to its song.
 I've heard it in the winter's blast,
 When nights were cold and long,
 I've fed it at the window,
 When snow flakes spread the ground,
 And I've listen'd to its music,
 When all was still around.

Lenore.

FROM THE GERMAN OF BURGER.

Lenore arose at morning red,
From dreamful slumbers waking ;
“ William, art faithless, or art dead ?
Why such delay art making ? ” —
Her knight had gone with Frederic’s
host
To where at Prague the swords had
cross’d,
And of him came no tiding
To her so lone-abiding.

At last the Empress and the King,
After a war so dreary,
Gave peace and rest, a blessed thing,
To soldiers sick and weary ;
Then all that host with song, and
shout,
And roll of drum, for home set out,
With fair green boughs adorning
Their ranks that jubilant morning.

O’er field and bridge, down lane and
street,
Flocked all the glad new-comers,
And young and old with cheerings
sweet
Hailed back the long-lost roamers.
“ Heaven be praised,” wept wife and
child,
“ Welcome,” sobb’d many a bride
half-wild ;
But to Lenore that meeting
Brought never kiss or greeting

Then far and wide she wandered well
Her lost One to discover ;
But none of all that host could tell
Why came not back her lover.
The ranks gone by, the greetings o’er,
Her raven locks she wildly tore,
And on the ground she cast her,
And wept and wailed the faster.

The mother kissed the maid so wild,
And prayed, “ May God befriend
thee !
Why weepest so, my darling child ?
May God His mercy send thee ! ”
“ O mother ; all is lost, is lost !
The world may go, my love is crost,
O God, O God thou scornest
My soul, of souls forlornest.”

“ O help, God, help us in our ruth !
Child, say a paternoster,
What He do’th, that is best in truth,
God will thy lorn heart foster.”
“ Tis all vain where the heart doth
bleed,
With me God hath dealt hard indeed ;
What help would come by praying ?
Heart’s-grief is part allaying.”

“ Pray God for help ; say no such
thing ;
None, none th’ All-Father scorneth :
The blessed sacrament will bring
Peace to the mind that mourneth.”
“ Mother, what burns within my
breast
No sacrament could lull to rest ;
No sacrament can quicken
Life’s-spirit in the death-stricken.”

“ Child, has thy lover sworn false
oath,
His soul with perjury laden ?
Think’st thou that he has plighted
troth
To other dearer maiden ?
Let not thy bosom take it hard,
Such, such in sooth have their reward ;
When soul and body sever
The false-sworn burn for ever.”

“ O mother, lost, all, all is lost !
The false, false knight doth scorn
me ;
Death, death is best for heart’s-love
crost ;
Would thou hadst never borne me !
Go out, for ever out, my light,
Die down, die down in dark and night ;
O God, O God, thou scornest
My soul, of souls forlornest,”

“ Help, God ; nor into judgment fall
With thy poor child for ever :
She knows not what she saith at all,
Her great sin O forgive her.
Thine earthly sorrow put away,
Child, and for God’s salvation pray ;
The Heavenly Bridegroom healeth
The soul that penitent kneeleth.”

“ O mother, mother, what is hell ?
 O mother, what salvation ?
 Without my William all is hell,
 And with him but salvation.
 Go out, for ever out, my light,
 Die down, die down in dark and
 night ;
 Without him here for ever
 Saved can I be O never.” —

Despair in blood and brain had will,
 Madness her senses routed ;
 The maiden raved and raged until
 God’s providence she doubted ;
 She beat her breast, her hands she
 wrung,
 Till Eve her darkening shadows flung,
 And till the gold stars sweetly
 Came into heaven fleetly.

When came a sound of hoofs, trap,
 trap,
 Now rising and now sinking ;
 Below a knight was heard to rap,
 His sword and armour clinking ;
 And hark, and hark, the bell doth
 ring
 All loosely, lightly, kling-ling-ling ;
 And then were echoed straightway
 These words beside the gateway :

“ Hollo, hollo ! get up my child,
 O wakest thou or sleepest ?
 Maiden, how are thy thoughts be-
 guiled ?
 O laughest thou or weepest ? ”
 “ William, is’t thou ? — So late by
 night ? —
 In tears I’ve watched though dark
 and light ;
 My heart doth ache with yearning,
 Love, why so long returning ? ”

“ I’ve ridden since the dawning light,
 Me well my steed doth carry ;
 Quick with me mount, though ‘tis
 midnight,
 There is no time to tarry.”
 “ Go not ; come in, come, William
 mine,
 The wind doth through the hawthorn
 whine ;
 Come to my breast to warm thee,
 Beloved, here nought can harm thee.”

“ Though th’ hawthorn whines the
 breeze indeed,
 True, dear, the night-wind’s chiding ;
 Clinketh the spear; paweth the steed ;
 For me is no abiding.
 Come, quick, and up behind me
 spring,

And let thine arms around me cling,
 A hundred miles we number
 Ere on bride-bed we slumber.

“ Wilt thou a hundred miles ere
 morn
 Me to my bride-bed carry ?
 Night’s mid hour from yon clock is
 borne,
 This is no time to marry.”
 “ Look here ! Look there ! The moon
 shines bright,
 We and the dead ride fast to-night ;
 To bride-bed thou art taken
 Ere dawn’s sweet light doth waken.”

“ Where is my nuptial-couch, say
 where ?
 Of marriage-guests what number ? ”
 “ Six boards and two long planks,
 my fair,
 Will form thy bed of slumber.”
 “ Hast room for me ? — “ For thee and
 me,
 Come, love, mount quick, not tardy
 be ;
 The guests do wait to meet us
 With festal song to greet us.”

Nimbly she on the good steed springs,
 No more the lady lingers ;
 Around her true knight’s breast she
 clings
 With clasping lily fingers ;
 Hurrah, hurrah, the steed doth
 champ,
 And galloping hoofs sound tramp,
 tramp, tramp,
 For knight and barb on bounded
 Till road and rock resounded.

On left and right i’the lonely night
 They passed the mountain ridges ;
 And wood and field flew out of sight,
 Behind them rang the bridges.
 “ Dost fear, my love ? — the moon
 shines bright ;
 Hurrah, the dead ride fast to-night ;
 Dost fear the dead, my darling ? ”
 “ No. — Why the dead, my darling ? ”

What voiceful sounds are borne along ?
 Is this place raven-haunted ?
 The slow bell list ! List the dirge
 song !
 “ Dust unto dust ” is chaunted.
 A mournful funeral band draws near
 With coffin and with dark-draped
 bier ;
 With voices sad and lowly
 They sing a requiem holy.

" Whilst they the corpse at dead of
night
Bury with lamentation,
I bear my bride through pale moon-
light

To nuptial jubilation :
Come, sexton, come, the graves
among.
Chant us the hymeneal song ;
Come, parson, speak a blessing
Whilst our bride-bed's a-dressing."

Mournfully slow goes by the bier
To sound of solemn dirges ;
The echoing hoof strikes on the ear
The fleet barb onward urges,
Hurrah, hurrah, the steed doth champ,
That swiftly gallops tramp, tramp,
tramp,
For knight and barb on bounded
Till road and rock resounded.

Flew right and left, and left and right
The mountains, trees, and hedges ;
Flew right and left, to left and right
Village and gable-ledges.

" Dost fear, my love?—the moon
shines bright ;
Hurrah, the dead ride fast to-night ;
Dost fear the dead, my darling?"
" No.—Why the dead, my darling?"

See there! See there! on gallows
high
The ruffian corpses dancing !
A breezy band are they, ween I,
In ghastly moonlight glancing.
" Hollo ! ye ruffian company,
Come down. I say, and follow me ;
A skeleton dance dance nigh us
Whilst we to bride-bed hie us.

Behind the skeleton dancers rush
With bones and chains a-clinking,
Like gusty winds on hazel-bush
And withered leaflets sinking :
Hurrah, hurrah, the steed doth
champ,
That swiftly gallops tramp, tramp,
tramp,
For knight and barb on bounded
Till road and rock resounded.

The moon shone high ; all things
flew past
That maid clasp'd round her lover ;
All things flew by ; the stars shot
fast
Within the heaven above her.
" Dost fear, my love? The moon
shines bright ;

Hurrah, the dead ride fast to-night ;
Dost fear the dead, my darling?"
" No.—Why the dead, my darling?"

" Barb, barb, the farm-cock croweth
there,
Haste, hast not far to carry ;
Barb, barb, I smell the morning air,
There is no time to tarry.
Hurrah, now finished is our ride,
The bed is waiting for the bride ;
The dead ride fast and steady."
My love, here all is ready."

Then at full speed the foaming steed
Dashed towards the iron gateway ;
And far apart, wide open start
The ponderous portals straighway :
The frightened night-bird croaking
cries ;
Over the graves the wild barb flies ;
The tombstones there are gleaming
In moonlight palely streaming.

But look ! and who would dare
confess
So fearful dread a wonder ?
For piece by piece the strange knight's
dress
Mouldered and fell assunder ;
His head became a naked skull,
An eyeless skull as blank as dull,
His body grew quite warmless,
And turned to skeleton formless,

The steed pranced high, till sparks
flew 'round,
As from rocks cleft asunder ;
Then snorting wild with one fierce
bound
Vanished the churchyard under.
From upper air fell words of woe ;
From out the vaults came moanings
low ;
Untill Lenore's heart quaking
Twixt life and death was breaking.,

Now round and round, to ghostly
strains,
Within the moonshine glancing
Blithe danced those skeletons in their
chains.
And shouted in their dancing :
" Have trust, have trust ! though
heart should break ;
Never thy God to question take ;
The hand of Death doth bind thee,
May God's great mercy find thee!"



Popular Geology.

STRATA OF HALIFAX.

THE FLAGSTONE ROCK.—The series of beds of shale rag, and freestone known by the above name, lie on the Lower Coal measures, and occupy the heights of Ringby, Catherine Slack, Queensbury, North and Southowram and Elland Edge. This formation is very variable. At Ringby, it consists of a great thickness of shale, rag, ashlar and freestone, at Northowram, many of the upper beds are missing, but the lower stone beds are more persistent.

The following is a section of one of Messrs. Cordingley's quarries at Ringby, taken October 16th, 1866: Each bed was carefully measured, and afterwards the line was strung from the top to the bottom of the quarry in order to correct the previous measurement of each bed. There was only a difference of a few inches in the two results.

	Ft. In.
1. Thin bedded stone (Fence stuff)	13 0
2. Shale	0 6
3. Stone	9 6
4. Shale.....	4 3
5. Rag	2 7
6. Stone.....	2 8
7. Rag	6 8
8. Stone	3 0
9. Rag	3 0
10. Shale	2 2
11. Stone	3 2
12. Rag	7 3
13. Bottom Stone	11 0
<hr/>	
Dip of the Strata 3 degrees to South East.	68 9
<hr/>	

Most of these beds retain their relative position and character across Swale's moor, but we have a slight variation at the edge of the moor facing Barehead, as the following section will shew:—

	Ft. In.	Ft. In.
Soil	0 6	}
Rubble (broken up rag and shale)	15 0	}
Rag	10 0	29 6
Raggy Stone	4 0	

		Ft.	In.	Ft.	In.
	Top Stone thin bedded flagstone	.....	.....	12	0
Bottom Stone	Strong Rag	.....	.....	6	0
	Ashlar Stone	.....	.....	4	6
	Lower Stone	.....	.....	7	0
					59 0

Dip of Strata 6 degrees or about 1 yard in 9 to the South. Taken October 13th, 1866.

At Paddock on the opposite side of Shibden-dale the following section occurs:—

		Ft.	In.	Ft.	In.
Lower strata of Middle Coal measures.	Soil	.....	.....	0	6
	Dark Coloured Rubble	.....	.....	5	0
	Brownish Shale	.....	.....	14	6
Top Stone	Stone	.....	.....	1	6
	Strong Rag	.....	.....	2	0
	Stone	.....	.....	2	0
	Shale	.....	.....	2	0
	Stone	.....	.....	1	0
	Shale	.....	.....	2	2
Bottom Stone	Raggy Stone	.....	.....	6	0
	Hard Shale	.....	.....	1	4
	Stone	.....	.....	10	0
					48 0

Dip of Strata 3 degrees South East. Taken October 13th, 1866.

The fourth and last section which I shall give, is taken from a quarry on the left hand side of the Bradford-road between Northowram and Shelf:—

		Ft.	In.	Ft.	In.
Lower strata of Middle Coal measures.	Soil	.....	.....	0	6
	Clay and Rubble	.....	.....	5	6
	Shale	.....	.....	16	0
Rag	.....	.....	.....	3	0
	.....	.....	.....	5	0
	.....	.....	.....	1	0
	Stone	.....	.....	4	0
Bottom Stone	.....	.....	.....	11	0
					46 0

Beyond this quarry the flagstone rock disappears, towards the east, under the Middle Coal measures of Shelf and Low Moor.

I have selected the above sections out of a great number that I have taken in different parts of this formation, as being perhaps the most illustrative of the Flagstone Rock of this neighbourhood.

Perhaps nowhere in this locality shall we get a better idea of this series of beds than in the Ringby and Swale's moor quarries. There they occur in every variety of form and material; from hard compact masses of stone, to soft marly shale; and from layers so thin that it would take many to form an inch in thickness, to others many feet in thickness. In

some beds of stone there are large boulders, generally egg-shaped, weighing many hundred pounds and sometimes as much as two or three tons. They are surrounded by a mass of soft sand called *marl*; and internally they are generally composed of a very hard, dark crystalline substance, very much like basalt or whinstone. How they came there is a mystery which cannot easily be solved, but that they do occur in the midst of the best stone beds is a fact which many quarry owners know to their cost.

Though the Flagstone formation as a whole is pretty uniform and constant in character, yet no two quarries are alike, or have exactly the same group of beds, however near they may be to each other; and very often the same quarry presents a different appearance at its two extremities, than it does at the other: but more especially is this the case in the above quarries where the beds are so numerous. The beds of shale in this formation, as in all others, are the most regular and extend over the greatest area and yet even they vary very much. There is a bed of shale (No. 2 in section 1.) which is only six inches thick in the quarry from which section 1 was taken, in the next quarry about 200 yards to the south it is nearly ten feet thick, and in an old quarry about the same distance to the north it is five feet thick. It extends right across Swale's moor with an average thickness of about four feet. The next bed of shale (No. 4 in section 1.) is more regular. It extends almost over the whole of Ringby and Swale's moor, varying in depth from three to four feet, but it gradually thins out to the east, and it is absent altogether at the quarry from which section 2 was taken.

The beds of stone vary extremely both in thickness and quality. While some beds remain pretty regular for a great distance, others will begin at a point like the thin end of a wedge and gradually increase until they becomes four or six feet or more in thickness, or a thick bed will sometimes rapidly thin out entirely in 10 or 20 yards. Such cases are of frequent occurrence in these quarries. The base of this series consists of a thick bed of ashlar stone varying from 7 feet to 16 feet in depth; it extends into Northowram where it forms thick beds of ashlar in some places and in others thin bedded *flagstones*. The formation derives its name from the vast quantity of *flags* which it annually yields. The industrial importance of the Flagstone rock is very great. It gives employment in our neighbourhood to thousands of persons, and adorns our town with magnificent edifices and other monuments of man's industry and intelligence which will endure for ages yet to come. Great quantities of the stone

are sent off to other parts of the country not so well favoured in this respect as ourselves.

There is a well-known bed of ragstone which lies just over the stone in many of the Northowram quarries, and upon this rag lies a bed of shale. These two beds are particularly rich in fossil plants, the junction of the two beds being sometimes one mass of fossils. It always suggests to my mind when I happen to be there while this layer is exposed, the idea of some great storm sweeping over the ancient forests, bearing down all before it, and burying the ruins with *debris*. There lay the plants perhaps, just where the storm had left them in the long, long past, interlaced in all sorts of ways; the *Calamites*, *Lepidodendra*, *Sigillaria*, and *Sternbergia*, *Hallonia* and *Ulodendra*—most of them it is true, mere fragments but still sufficiently large to enable us to detect the different genera. The greater number belong to different species of *Calamites* and *Lepidodendra*. I have often wished that I could carry the whole exposed mass of plants with me just as they were, for this layer is so soft that the attempt to break off a portion generally spoils the whole mass. But notwithstanding the fragile nature of this layer many rare and beautiful fossils have been obtained from it. The rag below abounds in fossils and they are generally in a good state of preservation, the prevailing forms being the *Calamites* and *Stigmaria*, though occasionally many other species are found. The freestone itself sometimes contains fossil plants, the fineness of the stone allowing of the preservation of the most delicate fossils; such as ferns, leaves, fruit-stones, &c., and shewing the finer impressions of the larger plants such as *Calamites* and *Lepidodendra*. The stone is in some places quite mottled with small fragments of fossil plants; appearing as if an autumnal gale, had scattered withered leaves and twigs over the water in which the sediment, that formed these beds was deposited. As the paucity and water-worn appearance of the Millstone Grit fossil plants indicate that they had been brought by rivers and ocean currents from a far distant land; so the profusion of the well preserved plants of the Flagstone Rock teaches us, that we are near, if not on the very confines, of those immense forests, the ruins of which formed the great coal fields of Low Moor and Barnsley.

Faults and Denudation:—

As all stratified rocks were originally deposited in level sheets at the bottoms of lakes, rivers, estuaries, or seas; if no other cause had been in operation, we should always find the strata horizontal: but we frequently

find them very much disturbed, sometimes they have been bent and folded and contorted into all sorts of fantastic shapes; sometimes they are fractured in nearly straight lines for a considerable distance and one side tilted up thousands of feet above the other. These dislocations are technically termed *faults*, a familiar term amongst miners.

In our own neighbourhood we have numerous examples of these disturbances. There is one dislocation which runs in a nearly straight line from Netherton Mill to Stock's Brewery and thence up through Bracken-beds, and throws up the strata to the north as much as 52 yards. Another has been traced from Raggalds' Inn near Mountain, to Northowram. It crosses the other at the above Brewery, and throws up the strata to the east 48 yards. Had it not been for these two *faults*, it is very probable that the great Freestone beds of Queensbury and Northowram would have been too deeply covered with other strata to have been profitably worked, and even their existence might never have been suspected. Another fault runs due north and south through Barehead and across Shibden-dale and throws up the strata 40 yards to the east, and another runs across Shibden-dale by Scout Hall into Barehead, and throws up the strata 18 yards to the north. Besides the above faults, a great number of smaller ones intersect them in all directions.

Through the agency of these *faults*, valuable beds of Stone, Coal and other useful minerals have been exposed to the light of day, which otherwise would have been deeply buried in the earth. A bountiful providence has not only stored up an immense quantity of fuel and other precious stores, but has also unsealed the storehouse so that man may behold the invaluable treasures of the earth and be able to reach them with the least difficulty. Here then, we see that even in those fearful revolutions which the earth has undergone, we have evidence of that "Divine Idea" which prevades all nature.

Notwithstanding all these upheavals, there is nothing in the outward appearance of these hills, or in Shibden-dale, to tell us that such violent movements have taken place, and unless we have them pointed out to us, or we are practical geologists, we could never imagine that the solid earth had been broken through in such strange ways.

What then has become of the tilted up strata? They have all been swept away by the mighty power of denudation. Great as these internal movements have been, they have not moulded the form of our hills, nor have they fashioned our valleys. This has been done by the power of moving

water acting upon them for untold ages. I have often pondered upon this subject while standing upon such hills as Ringby, Mount Tabor, Beacon, and Barehead. What has become of the 700 or 800 feet of strata, at the least estimate, which has been swept off our Grit Rocks, of all that part of our parish, North-west of Beacon Hill? (not to mention the deep valleys of Wheatley and the Calder) and of all that mass of earth which has been scooped out of the deep valleys of Luddenden-dale and Shibden-dale? Had the surface of the earth remained just as these disturbances left it, it is very probable that our neighbourhood would have presented a wild waste of abrupt precipices, varying from 1 foot to 160 feet in height. Scarcely a rood of continuous level ground would have been visible. No noble hills like Ringby or Beacon, no beautiful and fertile valleys like the Calder and Shibden, no lovely dales and sylvan dells; and no rivers and streams would have relieved the dreary monotony of the wilderness of deep pools and perpendicular cliffs.

All these inequalities of the ground were plained off, and afterwards our broader and deeper valleys were scooped out, most probably by the waves of the sea, before, or while the land was rising above the level of the water. But the manifold diversities of scenery which everywhere meet our admiring gaze, have been chiefly effected by the agency of such simple means as frost, moisture, rain, rivers and streams, and other atmospheric causes. From the summit of Ringby on a clear day, a splendid view may be obtained of the physical features of the country around Halifax. The crag and tail phenomenon, so ably described by Hugh Miller, is well illustrated by the great number and variety of sharp and well-defined prominences all facing to the west and north-west, which may be seen from its lofty eminence. The land behind these prominences slopes gently down to the east, and very often sinks under another crag, Several of these crag and tail phenomena may be seen in succession, in irregular lines right across the country as far as the eye can reach.

From the above brief sketch of the strata of our neighbourhood it will be seen that a great deal may be learnt about Geology even in the limited extent of our parish. I have necessarily had to pass over a great many interesting facts, in order to get my paper into the limits which our little magazine can afford for one subject. My object has been to put the subject in such a simple way as to be easily understood by any one who has any inclination to know something of the Geology of Halifax; for I am convinced that there is ample scope in our parish for the study of this

interesting science. The observations which I have recorded are the reminiscences of scores of pleasant rambles among the hills and dales of our good old parish; especially in that dearly beloved dale of Shibden.

J. S.

Color.

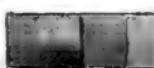
TO THE EDITOR, SIR,—I have often thought that a few remarks on the above named subject might be interesting to some of the readers of the "CIRCULATOR". I ought first to state that I lay no claim to originality in any of the rules laid down in this letter; the knowledge of them is the result of reading at different times the works of Pugin, Owen Jones, Dresser and Ruskin.

The science of color is like all other sciences in one respect, viz., perfection can only be gained when fixed laws can be laid down and adhered to. When, in spite of laws, things are done only at hazard, the result is failure in the majority of cases. Allow me to ask, "What would that engineer be worth who knew not perfectly the cause of effects which are produced by the mighty power under his control? Is it not likely that if ignorant of the fixed laws upon which he ought to work, that ere long the result would be some fearful disaster. And just so it is in regard to the harmonious combination of color. Color in most cases appeals the first to our senses, and if the result be satisfactory it predisposes us to look favourably upon the object; if on the contrary the first impression is painful, the beauty of the design (however great) fails to compensate for loss of effect in tone.

The laws relating to color are so simple that they are often slighted, and yet with all their simplicity the adherence to them is always sure to be attended with beauty and to create pleasure in the beholders, whilst any departure is as certain to be attended by failure. Nature the great authority should be first consulted, and if we follow her teachings (assisted as we may be by the collected knowledge of great men who have made this particular branch their especial study) we shall soon see that a plain path is open for us to follow and no occasion to mistake the way.

It has been satisfactorily proved that light is composed of the three primary colors, Red, Blue and Yellow, in the proportion of 8 parts Blue

5 Red and 3 Yellow, and throughout nature are these proportions preserved.

The primary colors placed side by side produce harmony  and to gain variety we form from them secondaries which are Purple, Green and Orange,  and again from these together with the primaries, tertiaries which are Olive, Russet and Citrine, and so forth.

Few know the simple fact how to decide on the most correct colors to produce harmony. Purple, Green and Orange, have each their proper harmonizers in Yellow, Red and Blue, being in each case the primary, not used to produce the secondary with which each is brought in contact; and as tertiaries, owing to their combinations, are duller than secondaries from which they are principally composed, their contrasting color should in like proportion be more sober, and should partake most of that secondary or primary (for primaries may sometimes be introduced with good effect in small quantities) which enters least into the combination of the tertiary.

Colors may be said to speak a language, and most eminent colorists have always kept this in view. Blue has been compared by some to Majesty, by others to strength, thought, peace, and gloom, Red to life, health and beauty; Yellow to light and purity; Green is perhaps the most cheerful color and is undoubtedly the most agreeable and lively tint.

The proper value of each color may be easily determined according to the proportion of the primaries forming light; Blue being the most abundant may be held the cheapest; Red being found in smaller quantities is more valuable; and Yellow being the scarcest, should always be sparingly used, for nothing creates so gaudy and paltry an appearance as an extravagant use of Yellow. Black and White are not acknowledged colors, but their assistance to enhance the beauty of others is most valuable. They should seldom appear in large quantities.

The Red, Blue, and Yellow of Commerce are not the same tints as those meant when speaking of the primaries, because you can rarely find them pure; but this does not prevent the same laws being brought to bear.

Combinations of color may be made to appear sombre, cheerful, or elegant, just in the proportion of the use made of that color which is acknowledged to represent it. For example, if a room is required to have a sombre or thoughtful appearance, Blue is the color that should prevail; but it is not necessary that it should be used in its pure state;—Purple, and Green, both of which contain blue in large quantities may be used, which

bring into the service, Red or Yellow; such coloring would be most appropriate for a library or study. Blue suggests and predisposes to thought, and should prevail; primaries or tertiaries may be used to gain additional effect, but care should be taken not to let the proportions alter with regard to the two colors which are merely used to heighten the effect of the one. They should act, as it were, as chords to the key note, the tone of which it is desired should speak its language in the room.

The words contrast and harmony are not so much opposed to each other as seems to be generally considered, for a good and proper contrast must always be productive of harmony. For a breakfast-room, a bright Green is most applicable, for it looks cheery and refreshing. For a dining-room I would advise Red, emblematic of health. For a drawing-room where elegance and purity should be found, a pale primrose would answer the purpose. Care should always be taken to have the floor of the room deeper in tone than the walls, the tone of which should be deeper than the tone of the ceiling.

I am fully aware what a difficult matter it would be to persuade some people to adopt any such mode of coloring, for it is only when the eye is educated that it is enabled to see the harmony and to enjoy it. Many people are content to follow in the steps of their forefathers, (right or wrong,) having firm faith that what they have been accustomed to is right, and as Moore forcibly expresses it—

“The babe may cease to think that it can play,
With heavens rainbow ; Alchymists may doubt
The shining gold their crucible gives out,
But faith, fanatic faith once wedded fast
To some dear falsehood, hugs it to the last.”

I have myself met with persons who were not only totally ignorant of the law of color, but have even been unable to see the effect of light and shade. One of these once remarked when looking at a drawing of a head “It’s sadly spoilt with those black marks under the nose and chin.” (the marks alluded to were the shadows cast) In vain I endeavoured to explain to him the cause of the effect he so much disliked, and as a last resource I placed myself in a position similar, and arranged the light to fall on my face in the same manner as the light fell on the picture; but he failed to observe any difference betwixt the side of my face on which a broad light fell, and the side which was in shadow. Some may think such a thing scarcely probable, but there are many such cases. An artistic friend of mine amused

me a short time ago by relating a circumstance more ludicrous still. A gentleman went to sit to him for his portrait, but he seemed to have a much greater interest in the faithful delineation of the buttons on his coat than of his own features. After repeated attempts they were finished to his satisfaction, and he went his way no doubt rejoicing. A few days after, he called again at the studio to look at the portrait which was still there; after gazing intently at it for some minutes, he deliberately turned it round to see if the buttons at the back of the coat were as good a match as those in front, and when the bare canvass met his eye he bristled up as though he had been defrauded out of what was his just due. My friend was almost convulsed with laughter when he saw the state of the case, and suggested (instead of flat canvas) to paint him on a pedestal in order that he might walk round it; but the sitter regarded it as no joke and angrily demanded to know why he had left out those two buttons? It required but little argument to show the absurdity of painting the buttons at the back of the canvass, but he had made up his mind to have his buttons painted and as they could not be shown at the back, he would have two extra in the front, and such was the case.

I fear I am trespassing too much on your space, but allow me to say a word or two more and I have done. these few words will be an apology for the rambling manner in which I have treated the subject. if it calls forth a spirit of enquiry I shall be amply repaid, and at a future time when I have more command over this roaming pen, I shall be happy to make up for my present short comings,

Yours truly,
A well-wisher for the success of the publication.

November Meteors.

THE extraordinary celestial phenomena called variously Shooting Stars* Aërolites, Meteors, have for many centuries excited the wonder and often

* *Aërolites* or Meteoric stones are extraneous bodies which occasionally fall upon the surface of the earth. One traversed France at the rate of 40 miles per second.

Shooting Stars are those evanescent meteors which dart across the sky at night in all directions.

Meteors.—This word properly includes all the phenomena which occur in the atmosphere and includes hail, rain, rainbows, &c. See *Hind's Astronomy*.

the fear of the civilized nations of Europe and Asia. The Chinese records furnish reports of these star-showers observed as early as 644 B.C. Sixteen falls of Aërolites are noted in the annals of the Chinese empire from 700 B.C. to 300 A.D. Greek and Roman writers only mention four during the same period. It would be an easy and pleasant task, to give lists with dates of all the grand showers of these wonderful bodies,—to give instances of huge solid flaming balls rushing downwards from the vast eternity of boundless space and burying themselves in the soil,—to tell of vast swarms of smaller meteoric stones being scattered over many square miles of country,—to detail the curious and beautiful theories which have been proposed to account for these fiery visitors from the celestial depths,—but on the present occasion we must confine our remarks to the periodic star-showers, usually called the August and November Meteors. These we shall distribute under the following heads:—1. The periodicity of the November Meteors. 2. The point of departure. 3. Their velocity and elevation. 4. The nature of such meteors. 5. The November meteors since the middle of the 18th Century.

1. *The periodicity of the grand † November Meteors* may be said to have been already discovered. Careful examination of ancient astronomical records, vigilant and accurate observations during the last 100 years, the application of mathematics to the subject, have all contributed in furnishing trustworthy data for the solution of the problem. About 33 years are found to elapse between two such displays as we witnessed on Tuesday night and Wednesday morning. Some weeks ago Mr. Alexander Herschell wrote thus—"The main body of the meteors is expected to visit the western shores of the Atlantic Ocean towards sunrise on the 16th of November." Olber's, the astronomer, fixed 1867 as the year for the magnificent spectacle seen this month. There is some uncertainty about the dates given for the star-showers in the other months of the year, but those given below are perhaps the most reliable.

2. *The point of Departure.*—On this subject there is but little

† It may here be remarked that although the displays are unusually grand in November and August, it must not be supposed that they are confined to these two months. On the contrary, an unusual number of ordinary shooting stars and often fine balls of fire are often seen in other months. The following dates may be acceptable to many, and are therefore given here:—January 1st to 3rd; April 18th to 20th; May 26th, July 26th to 30th; August 2nd to 5th and 10th; October 19th to 26th; November 12th to 14th; December 9th to 12th.

variety of opinion. All observers have agreed that the point in the heavens from which these wonderful bodies shoot forth is either in the constellation of Leo (which lies under the feet of the great Bear), or in that of Perseus (below and to the east of the great W. of Cassiopeia.) The observations made in November 1833, 1836 and 1837, in North America gave Leonis as the point of departure; while the meteors of August 1839 diverged from Algol, the variable star in Perseus. Saigey remarks that it is only after midnight that Leo is the point of divergence. It has also been noted that the November meteors have paths more divergent than those of August. Other points of divergence are Draco and Ursa Minor for the "fiery tears" of St. Lawrence, and Cassiopeia for the November stream.

3. *Their velocity and Elevation.*—Heis calculated the height of a falling star seen simultaneously at Breslau and Berlin to be 248 miles when it was first seen, and 168 on its disappearance. Of 100 falling stars, according to Brandes, 4 had an elevation of 4 to 12 miles; 15 between 12 and 24 m.; 22 from 24 to 40; 35 from 40 to 60 m.; 13 from 40 to 80 m.; and only 11 above 80 miles. Olber's regarded all heights above 120 miles as being uncertain. In order to form a distinct notion of the velocity of these cosmical bodies, it may be well to compare their motions with those of some of the planets. Jupiter moves in his orbit at the rate of 8 miles per second; Venus at 22; Saturn at 6; the Moon at $\frac{1}{2}$; the Earth at 19; and shooting stars at from 18 to 36 miles per second. From 4,000 observations extending over a period of 9 years, the following proportions of colours have been estimated:— $\frac{2}{3}$ of the shooting stars are white, 1-7th yellow, 1-17th yellowish red, and only 1-37th green *

4. Nothing very positive can be said as to the nature of these November meteors. Some astronomers regard them as bodies circulating in space about the sun. Their path about the centre of our system is thought to be a vast ring which intersects the orbit of the earth in those regions of the sun's apparent path through which we pass in November. At these periods they come in contact with our atmosphere, become ignited and rendered visible. The fact that they all appear to come from one point in the sky, together with the velocity with which they dart across

* During the hour from 1 to 2 a.m., November 14th, the greatest number of the most splendid meteors had beautiful green trains although the nuclei were bright yellow or white.

the starry vault, is strongly in favour of their having an existence independent of the earth.

5. When we consider the disturbances to which small bodies moving in space are subject, it is very wonderful to find their periodical returns connected with individual days. Up to 1846 no less than 15 such returns occurred on the 12th and 13th of November. Of these 15 by far the most brilliant streams took place in 1799, 1831, 1833, 1834. The number of meteors that are seen per hour is also very variable both in August and November. In 1839, on the 19th of August, about 160 fell in one hour; in 1842 about 34 fell in 10 minntes; while on Wednesday last I counted no less than 400 in 15 minutes, and more than 1,000 in an hour in one half of the visible heavens alone. There cannot be a doubt that more than 4,000 fell between 12.30 and 1.30 on that day. The November shower of 1865 was carefully observed at Greenwich. In all 279 meteors were observed, whose paths, colours, sizes, &c., were all recorded. Of these 72 per cent. per hour were blue:—34 were white; 30 bluish white, 4 yellow, 4 red, 1 rose and 1 green. Between 4.45 and 5 a.m., they were falling at the rate of 250 per hour. Again,—172 left trains; 58 per cent. per hour were 1st class size (size of Júpiter); greatest height 147 miles; greatest velocity per second 134 miles; the average length of the path of 4 of them was 58 miles, and the average velocity 64 miles per second.

A very complete account of these strange bodies is given in Humboldt's *Cosmos*. Most of the above remarks are taken from that work.

J. G.

"Meditations at the foot of the Beacon."

Blest be the heart that feels a kindred throb
Of love and sympathy for those in need.—
Blest may he ever be, whose eyes and ears
Serve as heart-portals, where others want
May confidently come, nor fear disdain,
But through them plead and never plead in vain,
Ye joyless souls whose every aim is wealth,
Who set your heel remorseless on the neck

Of some unfortunate, and by his fall
 Raise up yourself nearer your idol gold,
 (And feel not pity for afflicted ones
 Who perhaps more nobly strove, but missed the mark,
 Not wanting talents, will, or honest aim,
 But short of strength to hold on in the race,)
 To you,-ye heartless ones, I would appeal,
 To show the joys, (if joys are ever found,)
 That are derived by piling heap on heap
 Of glittering gold, the only use of which
 Is to give knowledge of possession held;—
 To live, to gain a mass of earthly wealth,
 And dying, leave the worshipped dross behind,
 Powerless to add one feather to the wing
 That weakly strives to bear your soul above.

Oh! mighty gold! thou powerful aid to bless;—
 Oh! mighty gold! thou oft times heaviest curse;—
 The miser's bane,—the poor man's ardent wish;—
 How are thy benefits abused and crossed!
 But could each avaricious soul be taught,
 To know the joys that spring from thy good use,—
 To love the ray, which from benevolence
 Is shed across man's pathway through the world,
 And to contrast it with the selfish joy
 Which fitful gleams amid the settled gloom
 That veils their hearts, and serves to show how dark,
 How lonely, and how void, is all within;—
 Then would they hold thee slighted by their love,
 And living make thee serve their nobler aims.

What monument can man erect and leave,
 That will not bow at last, to the stern will
 Of all effacing time? but ye who know
 The ancient spot which fondly I deem home,
 (The spot round which my heart-strings closest twine
 For which my muse would fain a garland weave)
 Know it has monuments which shall endure
 E'en when the ground on which they proudly rise
 Shall cease to show a single crumbling stone
 To point when once they stood;—for in the hearts
 Of generations yet unborn, shall live
 The record of munificence and love
 Which reared each stately pile.—That church,
 Whose glittering vane aspiring high, (as tho'
 To kiss the morning's beams as a first welcome
 To the sleepy earth,) will by decay or chance
 Lie shapeless in a mound of kindred dust;—
 On which may sit old men and tell the tale,

That once a house of prayer and praise stood there,
 The offering of a grateful heart to God.—
 And little children wondering may stand,
 Striving to comprehend the mighty change,
 And with their hungry ear devour the strain,
 And fix it in their hearts, to be again
 Rehearsed;—until at last it shall become
 As some old legend, fraught with lessons rich,
 Which shall be cited as a stimulant,
 To those who in that day possess the power
 To do such kindly deed.—Thus shall it live,
 And still a blessing prove,—and as the sea
 Of Time rolls onward shall be borne along,
 Until the weary waves shall sob it out,
 Or fling it as a snow-flake from their crest
 Upon the shores of inconceivable
 Eternity.—

Those sheltering hills spread round,
 Which as the day light fades appear to lie
 Like some huge beast to guard the favour'd vale;—
 With breast exposed to bear the brunt of strife
 When elements contend,—whose frowning front
 Speaks safety:—or in the early morning,
 When the sun chases the clouds of mist
 That slowly roll, they smile upon their charge;—
 Oft from their side have I enraptured gazed,
 And watched the silent town awake to life.—
 Those mighty hives of industry and skill
 Which like huge window'd cliffs, on every hand
 Rear their hard outline void of grace, yet rich
 In fund for contemplation; as the hum
 Of whirling wheels fell on the list'ning ear,
 By distance softened,—it has seemed as though
 It was the cadence of some mighty song
 Of industry and joy, of wealth and peace.
 Where once on every overlooking hill,
 Engines of death and warlike hosts have stood:—
 Reigns perfect peace,—and wild flowers deck the sward,
 Which once ensanguined reek'd with human blood.

Whence spring those lines of quaintly gabled roofs
 Whose pinnacles and towers attract the eye,
 And carry back the mind to days of old,
 And cherished tales of hospitality,
 When at the mansion porch the poor were fed?
 Are they a remnant of that bye-gone time
 That has survived, to silently convey
 The lessons of their love and charity?

Not such,—more heart-expanding still than they ;
 More cause for present pride ; not bleared and blotched
 By wasting years,—nor owe they to decay
 The veneration which their forms inspire.
 Beneath those high pitched roofs repose the poor,
 Secure from want, there to enjoy in peace
 The bounty of the rich benevolent.—
 One, nobler still, on far off rising ground
 (Raised in a style, fit palace for the queen
 Whose name it bears) the Orphanage towers high ;
 A mighty parent for the parentless.—
 (Oh ! how the admiration sinks to naught,
 How droops the contemplative pride we feel,
 When gazing on the halls whose only use
 Is luxury affording to the few
 Of favour'd fortune ; when compared with those
 Around which the air seems thick with blessings,
 As holy incense, from o'er burdened hearts,
 That breathe their gratitude in thankful sighs
 Of fervent wordless prayers, for God to bless
 The benefactors of the fatherless.—

And one green spot like an oasis set,
 Amidst the wilderness of parched streets,
 Where Art and Nature wedded, blend in one,
 And offer jointly of their charms to all.—
 Nor was it the accumulated mass
 Of some great city's wealth, that there bestowed,
 In lavish beauty such a costly gift ;—
 No ! Halifax it was a son of thine,
 Who blessed with fortune, shared ungrudgingly,
 With rich and poor from out his private store.

These are but few old Town of what thou hast
 Which offer charms, and bind me closer still ;—
 Thy skirting woods, and little babbling brooks,
 The rustic lanes, whose homely flowering weeds
 Gladden the sight of the observing eye :—
 All, all have charms, which make me bless the fate
 That cast my lot amongst thy just proud sons,
 And tho' the unlettered bard they may despise,
 They cannot rob me of the privilege,
 To walk thy fields, and muse amidst thy woods,
 To lave my throbbing temples in thy streams,
 To gaze upon the monuments they raise,
 Or blind me to the soul solacing truth,
 That though the distance 'twixt themselves and me
 Be e'er so great,—still am I one of them.

Days of Heptonstall.

THE LAST TRYST AT THE CONFESSIONAL.

“Hast more to confess thee? or stayest thou only
 In dread of the storm and the graveyard so lonely?
 Less pale is that passionless face o'er the altar
 Than thou, O Ladye;—what is that thou dost falter?

Count the beads on thy rosary; lingering stay not;
 May Heaven defend thee! thy footsteps delay not
 By the tenantless ruin i' the lone forest-alley,
 Ere the snow-drift has covered the track in the valley.

Take my benison, Lady, thy sins they are shriven,
 Not more are the saints in their white robes forgiven:
 Thy heart stirs the folds of thy dress in its flutter.”
 “I have more to confess, which my tongue dare not utter.”

“Can it be that thine eye gleams so fell and so madly
 'Neath lids mutely-drooping so pallid and sadly;
 Less wild is the wind in the turret, my daughter.”
 “There's blood on my hand, Sire, for *that* hast thou water?”

“Blood! Paler art thou than the flake on the chancel;
 As thou hopest that Heaven thy dark sins will cancel
 If hast secret more fell, unto me thou must show it.”
 “O Priest, there is blood on my heart I avow it.

Thy bosom would freeze did I tell thee my story;
 The angels a-nigh would fly back to the glory;
 I dare not go on with the cold-blood recital,
 The dead at our feet would start up for requital.”

“Speak, I am calm as the niche-saints around me.”
 “That light, is it fire? Do the demons surround me?”
 “Peace! 'tis but the moon glancing white on the casement,
 And the north wind a-howling from buttress to basement.”

“ Father, no tear-flow of penitent weeper
 Can wash out the foulness that blackens the deeper
 ‘Tis indnlged in and loved, till it stifle and smother
 What is purest in wife, what is holiest in mother.

I had broken the vow of troth-oath, and *he* knew it;
 Oh ! the calm that he kept it was painful to view it;
 Yes, he *knew* it, and yet his pale face kept its fashion—
 How that silence spoke more and cut deeper than passion !

And day after day he disdainéd to murmur
 One word of betrayal.—Did pride hold him firmer,
 Or affection ?—Aye kind was his face in its loving,
 Frown never the tale of his agony proving.

I remember that night, as I stood there uncertain,
 Looking *out* at the great calm night through the curtain,
 When the snowfall had blanchéd the pine forest’s sable,
 And the moonlight lay cold upon window and gable.

I remember that night, as I stood there uncertain,
 Looking *in* by the light that a-streamed through the curtain
 At his still face up-looking in dreamlight so kindly,
 Which I gazed at with eyeballs that gazing gazed blindly.

My hand it would tremble, my step it would stagger,
 As I bent o’er his form with my grasp on the dagger ;
 For I felt that his lips blanched in death were less killing
 Than those lips, locked with secret, whose silence was chilling.

I dared not to gaze, lest the deed should undo me,
 Lest the glazed eye should haunt, and the death-look pursue me,
 So I turned from his face, for my heart it was leaping
 At the deed I was doing—I stabbed him a-sleeping.

All in vain is confession, for me is no pardon,
 There’s a sin in my bosom the years do but harden ;
 Can the Water of Life quench the hell of remorsees,
 Cool the fire in my veins that so scaldingly courses ?

Art afraid of the story thy daughter rehearses ?
 O Priest, do thy lips mutter blessing or curses ?

I dare not look up; can thy daughter be shriven?"

"Unbosom the *whole*, ere thou risest forgiven."

"I went out from the dying, with hands that were fouléd;
At the threshold the mastiff uprearing him howléd;
Did he howl for the dead or the deed thou abhorrest?
Or answer the howl of the wolf in the forest?

I paused not a moment, not there could I linger,
But the gateway undoing with quivering finger
Stepped out to the great calm night,—how the brightness
Was reproof to my stain!—his blood crimsoned the whiteness.

The blood on that dagger is cleansed by the water
Of the crag-crested Hebden.—I would that thy daughter
Her crimson had cleansed—the wavelets cleanse surely—
Would that I were as clear, sins of mine washed as purely!

The river moaned on through witheréd sedges,
My footsteps were wild as I stepped on the ledges
Of cliffs icy-sharp; for the frost-wind was biting,
And the north fires their blood-crimson streamers were
lighting.

Here i'the chapelle shone the lights on the altar,
The priest and his clerks sang aloud from the psalter,
Sweet in their virgils the nocturns they chaunted,—
What were psalter and nocturns to me demon-haunted?

From the belfry the bell tolléd solemn and slowly,
In the still deep hush of the night calm and holy;
In the cot they were wailing the dirge at the waking,—
Bell and dirge what were they to a heart that was quaking?

The choristers' hymn in the distance was dying,
Low adown in the west the pale moon was a-lying;
To the valley I fled, fled I on by the river;
The cry of the wolf made me tremble and shiver,

And on by the elms, where in lover-lone roaming,
Ere my heart was untrue, we had kissed in the gloaming

As the night dews were falling—now cawëd the raven,
And my heart in its passionate frenzy was craven.

O father, I ween that where mortal aye turneth,
No hotter or deadlier hell ever burneth
Than that, where the bosom is racked with remorse's
Fell fire, that through blood-vein so scorchingly courses.

'Tis useless, O Priest, there is never forgiving
For sin such as mine is.—Ah ! vain is thy shriving;
Hark ! the dead in the vault at our feet they are moaning !"
"Peace ! 'tis but the snow-burdened yew-branches groaning.

"Look behind ! Who are they with the haggard pale faces,
Noiselessly stepping with spell-woven paces ?
Do the dead keep watch in their cerements nightly ?"
"Peace ! 'tis but the moonbeam on pillar flashed whitely."

"Nothing more ! nothing more ! for my lips they will falter,
I know I shall die as I kneel by the altar :
Is it blessing I hear ? or thy tongue does it curse me ?"
"Heed not blessing or curses—thy story rehearse me."

„O Priest, I do vow, as I kneel by the altar,
My lips nothing more of that story shall falter,
For a hell that is fiercest and deadliest racketh,
And in blood and in brain so remorselessly tracketh."

"Take courage ! the storm-wind it bloweth but faintly,
And the moon re-appeareth with countenance saintly,
And the silence that filleth the aisle solemnizes
More than presence of angels ;—away with surprises.

Look up, O Ladye, on my countenance readest
Thou ought but forgiveness for sin which thou pleadest ?
Face to face let us stand ; thy sins they are shriven,
Of the darkest of crimes I pronounce thee forgiven."

"I cannot, O Priest, for thy gaze makes me tremble,
Thy features the features of *him* so resemble ;
I cannot say more, lest should rise at my story
The dead from his sepulchre clammy and gory."

" Face to face let us stand ; by the taper-flame's gleaming
 Canst discover the face that was stabbed in its dreaming ?
 In this form canst discover who dared not to stagger
 When thine bent above it with hand on the dagger ?

Face to face let us stand ; from no crypt have I risen—
 That blow was not fatal—the sepulchre's prison
 Held never the form that was smote for the nearer
 Embrace of the treacherous One who was dearer.

Lady Lisle, at the tryst when the daylight was over,
 You have stayed in the heathery dells with your lover ;
 And love-oath at the bridals low-kneeling demurely
 You vowéd to me, at that tryst vowed purely.

Go, be free of the vow and the pledges thou knewest,
 When the tears that did mingle could consecrate truest,
 That day when thy whisper was holier than voices
 Of brooklet and breeze, where the greenwood rejoices.

Go, be free of the oath, where the swearing was holy,
 Thy hand clasped in mine, and chaste lids bending lowly,
 When the benison spoken by priest consecrated
 A love where the loving was love of love-mated.

Lady Lisle, ah ! it matters but little that weeping,
 The last of our trysts, I do vow, we are keeping :
 The last tryst did I say ?—Once again by this altar
 Must we meet, when the choristers sing from the psalter ;—

At a tryst where the sacristans carelessly cover
 Husband and wife, when the loving is over ;
 And a mourner or two turn away in their weeping—
 Of *that* tryst, Ladye, you'll be true in the keeping."

JOSEPH FOX.

THERS' A MULE I' TH' GARDEN.

A CHRISTMAS STORY.

HARK thi lass, what a wind ! it's a long time sin we had sich a storm,
 Folk ought to be thankful 'ats getten a warm hearthstooan to put ther feet

on, sich weather as this;—unless it alters it'll be a drce Kursmiss-day. If ony poor body has to cross this moor to neet, they'll be lost, as sure as sure con be."

" Its a fearful neet reight enuff lad, an it makes me creep cloiser to th' range,—but its th'sooart o' weather we mun expect at this time o'th' year. Its a rare gooid job tha gate them peats in, for we stand i' need ov a bit o' fire nah. Does ta mean to sit up all th' neet same as usual ? "

" Eea, I think ther's nowt like keeping up th' owd customs, an' we've niver missed watching Kursmiss in sin we wor wed, an' that 'll be nearly forty year sin ; weant it ? Shift that canel, sithee ! ha' it sweals. Doesnt ta think tha'd better ligg summat to th' dooar bottom ? Hark thi' what a wind ! I niver heard th' likes ; it makes th' windows fair gender agean. Soa, soa ; lend me howd o' that pooaker, I shall niver be able to taich thee hah ta mend a fire, I do think. Tha should niver bray it in at th' top ;—use it kindly mun, tha'll find it'll thrive better ; its th' same wi' a fire as it is wi' a child—if you're allus braying at it you'll make it a sad un at th' last, an' niver get nowt but black luks. But its net mich use talking to thee I con see, for tha'rt ommost asleep ; I believe if th' thack ud to be blown off tha couldn't keep thi e'en oppen after ten o'clock ; but use is second natur ommost, an' I feel rayther sleepy mysen, I allus do when ther's a wind."

* * * * *

In two or three minutes they wor boooth hard asleep, but they hadn't to sleep long, for ther coom a knock at th' door laad enuff to wakken deaf Debra (an shoo couldn't hear thunner). Th' owd man started up an flew to oppen th' door, an' in a stawped walking snow-drift.

" I wish yo a merry Kursmiss," he said.

" Thank thi lad ; come a bit nearer th' leet. If tha's browt nooa better luck nor tha's browt weather, tha 'd better ha stopped at hooam. Who art ta ? "

" Well, its a bonny come off," said th' chap, " when my own uncle connot own me."

" Its nooan Ezra, is it ? " said th' owd woman.

" That's my name, I believe, aunt," he said.

Waw, do come an' sit thi daan. Set that kettle on lad, and make him a drop o' summat warm ; he'll do wi' it."

It worn't long afoor th' new comer wor sat i'th' front o'th' fire. Smooking a long pipe an' weeting his whistle ivery nah an then wi' a drop o' whiskey an' watter.

"Nah lad," said th' owd man, "what news has ta browt? Tha's generally summut new."

"I've nowt mich uts likely to be fresh, I dooant think," said Ezra Yo'd hear tell abaght that do o' Slinger's, I reckon?"

"Niver a word, lad; what's th' chuffin heead been doin'?"

"Well I'd better start at th' beginning o' my tale, an' as it's rayther a longish en, yo mun draw up to th' fire and ma up your mind to harken a bit."

"Yo happen niver knew Molly Momoooin? Shoo lived at Coldedge, an' used to keep one o' them sooart o' spots known i' thease parts as a wisht shop; yo'll know what that is? Shoo worn't a bad-like woman, considering her age, (for shoo wor aboon fifty, an' had been a widdy for a dozen year), an iver sin her felly deed, shoo'd sell'd small drink o' th' sly (they dooant think its wrang up i' them pairts) an ther wor at said it wor nooan of a bad sooart, tho shoo used to boast at ther wor niver a chapgate druffen i' her haase. tho ther'd been one or two brussen. Likemonny a widdy beside (at's getten a bit o' brass together) shoo wor pestered wi' chaps at wanted to hing ther hats up, an put ther feet o' th' hearth-stooan, an call thersen th' maister o' what they'd niver helped to haddle. But shoo wornt a waik-minded en, wornt Molly:—an shoo tell'd em all at th' chap at gate her ud have to have a willing hand as weel as a warm heart, for shoo'd enuff to do to keep hersen, withaat working her fingers o' th' booen for a lump o' lumber ith' nook.

Soa one after another they all left off bothering her except one, an hat wor Jim o' long Joan's, throo Wadsworth, an he seemed detarmined to get her to change her mind if he could. As sooin as iver shoo ppened th' shuts in a morning, he used to laumer in an call for a quart, that cost him three-awpence, an used to fit him varry weel woll nooin). Well, things nother seemed to get farther nor nearer for a long time, but one day summat happened at made a change ith' matter. It wor just baght th' time at th' new police wor put on, an Slinger wor made into ne. Nah Slinger thowt he ought to be made into a sargent, an he said he wor detarmined to extinguish hissen i' such a way woll they couldn't be off promotioning him, an if they didn't he'd nobscord." Soa th' furst hing he did wor to goa an ligg information agean owd Molly selling ale baght license. Th' excise chaps sooin had him an two or three moor off to cop th' owd lass ith' act, for they said "unless they could see it thersen"

they could make nowt agh." It wor a varry nice day, an off they set o' ther eerand.

Nah it just soa happened at Jim o' long Joans (they used to call him Jimmy-long for short), wor looking agh't oth' winder, an saw em coming; ther wor noaboddy ith' haase drinking but hissen, soa emptying his quart daan th' sink, he tell'd Molly to be aware, for ther wor mischief brewing; an then he bobbed under th'seat. In abaght a minit three on em coom in,—not i' ther blue clooas an silver buttons, but i' ther reglar warty duds.

"Nah, owd lass," said one, "let's have hauf-a-gallon o' stiff-shackler an luk sharp."

"What do yo want, maister? I think yo've come to th' rang haase; do yo tak this to be a jerry-hoil, or ha?" said Molly. (They'd ta'en care to leave Slinger aghtside, cos they knew he'd be owned.)

Nay, nah come," they said, "its all reight mun, here's th' brass, sithee, fotch a soop up for we're all three as dry as a assmidden."

"Why, if yo are reight dry," shoo says, (an bith' mass they wor, for they'd been walking a bit o' ther best), ther's lots o' watter ith' pot under th' table, but be as careful as yo con, for it bides a deal o' fotching—but I wodn't advise yo to fill yor bellies o' cold watter when yo're sweating is nooan a gooid thing mun. Have yo come fur? Yo luk as if yo'd been running agh't oth' gate o' summat, but I hope yo've been i' noa sooart o' mischief; hasumever, sit yo daan an cool a bit.

They set em daan, for they wor fesened what to do, en at last one on em whispered, "I believe Slinger's been having us on, seeking th' fiddle, but if he has we'll repoort him an get him discharged like a shot."

"Why," said another, "ha is it he is'nt here?" Where's he gooan?"

He's hid hissen ith' pigcoit just aghtside. I expect he'll be ommost stoled o' waiting by this, but let him wait, he desarves it for bringing folk o' sich eerands as theease. We'st nobbut get laft at when we get back, soa what think yo if we goa an say nowt abaght it? He'll nooan stop long I'll warrant."

"Well, nowt but reight," they said; soa bidding th' owd woman gooid day, they set off back. When they went agh't, Jimmy crope throo under th' longsettle, an' luking at Molly he said, "Nah, have I done thi a gooid turn this time owd craytur"?

"Tha has, Jim, an I'm varry mich obleeeged to thi, lad," shoo says, "an tha shall have another quart at my expense."

"Net yet, thank thi, Molly. I havn't done wi this—ther's a bit ov a

spree to be had aght on it yet mun, I heared ivery word at they said, an what does ta think? They've left Slinger ith' pigeoit waiting, an I mecan to keep him theear for a bit." Soa saying, he quietly crept aght, an went raand to th' back o' th' pig-coit.

"Slinger! are ta theer?"

"All reight, lad; have yo fun ought?"

"Not yet, but we're just gooin to do; tha munnat stir, whatever tha does. Its a rare do is this. It'll be th' making on us, mun."

"Does ta think we shall get made into sargents," axed Slinger.

"I lad, an corporals too, I'll be bun; but howd thi wisht, whatever tha does—we'll come for thi as sooin as we want thi. Does ta think tha could sup a drop a summat if tha had it?"

"I wish I'd chonce, that's all."

"Well, bide thi time, an I'll send thi some."

Jim, then walked away, an leaving Slinger screwed up like a dish-claat, he went into th' haase, and call'd for a quart.

"Well, what's come o' Slinger," said Molly.

"Oh he's all reight,—he's gooin through his degrees to get made a sargent or a corporal or some other sooart ov a ral, but I'll bet he'll wish it wor his funeral afoor I've done wi' him."

Jimmy sat comfortably supping his stiffshackle an smoking a bit o' bacca, an tried by all th' meccans in his power to weedle th' owd woman into his way o' thinking.

"Tha mud do war nor ha' me mun" he said, I'm nut over handsome I know, but ther's nowt abaght me to flay onyboddy."

"Ther'll nubydy be freeetened o' thee lad tha need'nt think," shoo says, for tha reminds me ov a walking clooas peg,—if tha'd been split a bit heigher up tha'd ha' been like a pair o' cart shafts."

"Well tha knows beauty's i'th eye o'th beholder says Jim.

"They'd be able to put all thy beauty i' ther e'e an see noa war for it" shoo says.—

"Well I'm willing to work an keep thi a lady as far as th' brass'll goa."

"What mack ov a lady I should like to know? Th'same as I am nah I reckon, up toth' elbows i' soap suds. But once for all I want thi to understand at I'm nooan i'th wedding vein at present."

"Well tha't a hard-hcarted woman, thots what tha art,—an nooan as

gooid ith'bottom as tha might be, or else tha'd niver live here chaiting th' excise for a living, astead o' being th' wife ov a daycent chap. I ommost wish I'd letten them chaps catch thi ; it ud nobbut ha sarved thi reight."

"Sarved me reight, wod it? Well tha con gooa an fotch Slinger aghit o' th' pigcoit (for I reckon he's theer yet), but ha mich better ar ta, at sits shear supping it? But whether I'm as gooid as I should be er net, I'm sure tha'rt a gooid-for-nowt, an th' sooner tha taks thi hook aghit o' this haase an th' better, for I've studden thy nonsense woll I'm fair stoled. Are ta baan? For if tha doesn't tha'll get this poaker abaght thi heead."

"Nay! Nay! tha doesn't mean it" said Jim jumping aghit o'th' gate "tha wodn't hurt me surelee?"

"Hurt thi! drabbit thi up, tha's spun me to th'length.—ger aghit o'that door : "

Jimmy kept backing aghit step by step an' Molly wor flourishing th' poaker, but nother on 'em saw at th' peggy-tub wor fair i'th' gate woll Jim backed slap into it. Splash went th' water o'ivery side an Molly skriked "A'a dear! a'a dear! sarved thi right, as if tha could'nt see a whole tub. What are ta splashing like that for?"

But poor Jimmy couldn't spaik, for he wor wedged as fast as a thief in a miln, an' nowt but his legs an' arms could be seen. Molly catched howd on his legs an' tried to pool him aghit but th' heigher shoo lifted his feet an' th' lower sank his heead, soa ther wor noa way to do but to roll it over an' teem him aghit.

"This beats all" says Molly, as shoo helped him up, "could'nt tasee it?"

"Does ta think I've a e'e ith back o' my heead" he said; its all long o'thee, an dang it that watters whoot.

"It's like to be whoot" shoo says, " did ta iver know folk wesh i' cold watter tha' lump heead.?"

"Well, what shall I have to do? I'm as weet as a sop to say nowt ov a blister or two."

"Tha mun goa thi ways to bed an' throw thi clooas daan th' stairs an' I'll see if I connot dry 'em off for thi."

Soa up stairs he went an' flang his weet things daan, saying at th' same time " If tha finds ony buttons off tha can suit thisen whether tha puts 'em on or not."

"I've summat else to do nor sew for thee, tha's made me wark enuff."

It did'nt tak long for Molly to dry th' cloas an' shoo raylee felt sooary for him after all, soa shoo set too an' stitched him a button or two on, an' as shoo said, "mensened him up a bit for he wor somebody's poor lad."

He wor sooin drest nice an' comfortable agean an' then he thowt it wor time to goa an' see what had come o' Slinger.

As sooin as he coom near th' coit he could hear him snoaring away ommost as laad as a trombone. "Well tha'rt a bonny en" he said "to be paid agh't o'th rates for keeping a sharp luk agh't. I did think to bring thi summat to sup but its a pitty to disturb thi. I'll try another dodge an see ha' that'll act."

Away he went an' in a minit or two coom back wi a huggin o'strea, an' quietly oppening th' door he shoved it in,—he then walked off muttering "tha'll be capp'd when tha wackens owd lad."

As th'day began to grow shorter a few owd faces began to peep in to see ha Molly wor getting on an' to taste ov her drink. When ther'd getten abaght a hauf a duzzen on em Jim slipped agh't an' sammed up all he could find i'th' shape o' buckets an' had em filled wi watter an' not o'th' cleanest sooart,—then he lit a wisp o' strea just agh'tside o'th' pighoil door an' waited woll th' smoak had begun to curl nicely up;—then he darted into th' haase an' bawled agh't "Heigh lads! do come,—somdy's set th' pighoil o' fire."

Agh't they flew an' sure enuff there it wor reeking away like a brick kiln

"Sleck th' inside first" says Jim, an' in a twinkling one pailful after another wor splashed in. Slinger sooin wackened but he wor fast what to make on it,—he thowt he must be dreaming ov a storm at sea or summat.

"Howd on! Howd on!" he yell'd agh't "what have yo agate?"

"Do luk sharp lads" says Jim "ther's somdy inside they'll be burnt to th' death. Bring some watter some on yo."

"Ther is noan "they says" its all done."

"Why mucky water 'll sleek as weel as clean, give us howd of a pailful o' swill. We munnot have th' poor body burnt to th' death. Just as Slinger was rushing agh't o'th door he gate a reglar dooas as ommost floor'd him.

"Nah lads, lets stop a bit "says Jim" I think th' dangers ommost over,—lets see who this chap is. It's happen somdy at wanted to burn owd Molly agh't o' haase an' harbor."

Slinger brast agh't o'th door like a roaring lion,—but he wor sooin collard, an' he wor soa bedizned wi soft cake an' puttaty parings, 'at his

own mother could'nt ha' owned him.

"Dooant yo know who I am' he sputtered agh, "I'm Slinger yo know me."

"Bith mass it is Slinger" said Jim,— its noabdy else," whatever has ta been dooin to get into a mess like this? Tha may thank thy stars tha worn't burnt to th' death."

"Well I dooant know 'at it means mich whether a chaps burnt or draand, but awther on 'em befoor being smothered,—did iver ony body see sich a seet as I am?"

"Why tha luks like a sheep heead wi brain sance tem'd over it said one."

"He need'nt carry a scent bottle wi' him, they'll be able to smell him withaat" said another.

"Ha shall I have to get clean" says Slinger. "I cant goa hooam this pietur?"

"Tha'll have to get somdy to scrape thi daan, unless tha thinks tha's getten enuff o'th' scrape tha'rt in already ;—but I think tha'd better goa hooam to th' wife an' tell her tha's comed."

"He's noa need to do that, if shoo's ought of a nooas shoo'll find it agh."

"Well if this is what comes o' being a bobby I'll drop it, but for goodness sake lads, niver split for I st niver hear th' last o' this do."

At last they persuaded Slinger to goa hooam, what he said to th' wife or what shoo said to him folk niver knew, but certain it is 'at shoo went an' left him an' lived wi her mother for a booon a wick at after.

When he turned agh next morning to goa see th'superintendant, he luked like a gate pooast ats sudden in a rookery for six months. He'd to wait a bit afoor he could see him, but when he did he said "Maister!" I've comed to get turned off for I'm sick o'this job—noo moor constubling for me, I've had enuff."

"Why my gooid man" he said "whats up? Have yo dropt in for summat yo dooant like?"

"I have,—an' summats been dropt onto me" at I dooant like, an' I've made up my mind to throw up th' drumsticks an' tak to honest hard wark for a living."

"Well young man, yo seem dissatisfied, but yo should remember 'at we're like soldiers in a war. we're feighting agean things 'at isn't reight, its nut allus straight forrad, it seems yours hasn't been this time, but its one o'th' chances o' war 'at yo mun expect."

"It may be a chance o' war, but it 'll be a chance o' better afoor yo catch me at it agean, so gooid morning."

When he'd getten into th' street he langed to goa up to owd Molly's agean, but thowts o'th' neet afoor kept him back, an' varry weel it wor soa for Jim o'Long wor dooin his best to flay th' owd woman woll shoo'd be glad to have him and shut up th' whisht shop,—an' be shot he managed, for shoo promised shoo'd wed him in a month an' shoo wor as gooid as her word.

Jimmy settled daan to his cobbling (for he reckoned to do a bit at that when he did ought) an' he worked away varry weel for a bit, an' Molly took a pride i'th' garden aghtside an' th' haase inside, an' they wor varry comfortable. But ther wor just an odd booan somewhere abaght Jim at did'nt like wark an' I think it must ha been a wopper, for it used to stop all tother every nah an then for two or three days together.—He liked to goa and sit i'th' beershop opposite an' have a pint or two, an' Molly knew it wor her bit o' brass at wor gooin, for sho said "he hardly haddled as mich sometimes as he cost i' wax."

One day he'd been rayther longer nor usual an' shoo wor just ready for him.

"I thowt tha used to tell me at it wornt th' ale tha wanted, it wor me, nah it is'nt me tha wants, its th' ale.

"Why woll a chap lives he con alter his mind, connot he?"

"Oh! soa tha's altered thi mind has ta? tha's noa need to tell me that, I can see it, and I've altered my mind too, an' Ive a gooid mind to pail my heead agean th' jamm when I think on it."

"Why lass its a pity to spoil a gooid mind, but I'st advise thi to tak thi cap off for fear o' crushing it."

"An if I did crush it, whose brass wor it at bought it I should like to know? Tha's taen moor brass across th' rooad this wick nor what ud ha bought booath a cap an a bonnet, an' tha'rt staring across nah as if tha langed to be gooin agean. What art ta staring at?"

"Nay nowt, but I think ther's a mule i'th' garden" said Jim.

"He'd hardly getten th' words aght on his mauth when Molly seizes th, besom an' flies aght saying " Its just what yo mun expect when folk come hooam hauf druffen an' leave th' gate oppen."

"Whatever has th' owd craytur up says Jim? shoo surely doesn't think I meant ther wor a mule ith garden? I nobbut meant ther wor a bit ov a row ith hoil; but I'll niver be trusted if shoo isnt luking under th'

rhubub leaves as if shoo thowt a mule could get thear, but shoo'll be war mad nah at ther isn't one nor what shoo wod ha been if ther'd been hauf a duzzen."

Molly coom back in an awful temper, "Soa tha thowt tha couldn't do enuff to aggravate me but tha mun make a fool on me?"

"Why wornt ther one?"

"No ther worn't an' tha knew that."

"Ther wor summat 'at luk'd as faal as one daatless when tha wor thear.

"Come tha's noa room to talk. I think I'm as handsome as thee ony end up. Folk may weel wonder what I cud see i' thee, an' I niver should ha had thi if I hadn't been varry close seeted."

"Tha'rt booath cloise seeted an' cloise fisted I think, an' if tha wor cloiser maathed sometimes ther'd be less din."

"There tha gooas agean. Ive spokken have I? I'll tell thi what it is, tha cant bide to be tell'd o' thi faults, but I'm nooangooin to be muzzled to suit thi."

"Why lass it isn't oft tha oppens thi maath for nowt, tha generally lets summat aghat."

"Well, an' when tha oppens thine tha lets summat in, soa we're abaght straight."

"I wish we wor lass for I'm stoled o' this bother, an' if ther isn't a mule i'th' garden, nah, ther's summat else, for if that isn't Slinger I wor niver soa capt i' my life. Why he luks as fat as a pig, oppen th' door an' ax' him in for its th' first time Ive seen him sin he'd his heead in a pooltice."

"Gooid day Slinger, ha ta getting on?"

"Oh meeterley just. I thought o' calling when I went past afoar but ther wor sich a din, I thowt ther mud be a mule i' th'"

"What does ta say "says Molly? Has ta come here to taunt me. I've been tell'd abaght that mule afoor this afternooin."

"Molly," said Jim, "tha caps me. Doesn't ta know what folk mean when they say thers' a mule i'th' garden." they mean thers a bit ov a dust ith hoil, that's all mun."

"Oh! is that it " says Molly?" I see nah—yo know I'm to be excused if I dooant understand iverything, for I'm not mich ov a scholar, ther wornt schoolis like ther is nah when I wor a lass, but I'd a brother once 'at wor as cliver as anybody, he used to be able to rule th' planets, but he wor draanded at th' last, an' I declare I've niver been able to bide th' seet o' watter sin, I believe that wor what made me start o' brewing."

“ Why yo happen have a sup left said Slinger ”?

“ Ea lad, ther’s some i’ that pewter sithee—tak howd an “ sup.”

“ Thank thi’ “ he said, an’ here’s wishing at ther may niver be a mule i’th’ garden but what’ll be as easy getten shut on as this has been this afternoon.”

“ Gooid lad Slinger ! Tha talks like a book. I believe if tha’d had a better bringing up tha’d ha’ made a philosipher says Molly.”

“ Tha had a fancy once so be a police ossifer hadn’t ta said Jim ? But I think tha’s getten that nooation purged aght on thi nah ”?

“ Well I gate it swill’d aght on me ony way. But I think sometimes ’at it towt me a bit o’ sense, an’ whoever he is ’at wants to raise hissen up, by pooling somdy else daan I hope he’ll get sarved ith’ same way ; for when a chap shuts his e’en to every bodys interests but his own he desarves to be dropt on—but if we’d all to strive to learn one another a hand, things ud go on a deal smoother, an’ as nooan on us are perfect we ought to try by kindness an’ gooid natur an by practising a bit o patience to make one another’s rooad as pleasant as we con an if we stuck to that we should find fewer mules i’th’ garden.”

* * * * *

“ O ! an’ soa that’s th’ tale abaght Slinger, is it Ezra ?”

“ That’s it uncle, its done nah.”

“ Its abaght time it wor, an’ th’next time tha comes here an’ brings a tale wi’ thi, make it hauf as long an’ it’ll be twice as welcome.”

J. H.

Stanzas to Juanita.

O name for ever on my lip,
While memory bears her part
Deeper than Calais e’en was writ,
On Royal-Mary’s heart.

Daily its lightest whisper makes
The bounding life blood leap ;
Nightly sweet music ever gives
Its semblance in my sleep.

Juanita should I find thee
Other than I fondly deem,
Still my heart shall plead forgiveness,
Dew-drops are not what they seem.

S. W.

Autumn.

The year is speeding fast with its never-ceasing round,
And the once green leaves are lying wither'd on the ground,
Scatter'd o'er the meadows by the chilly autumn breeze,
As it whistles through the branches of the leafless trees.

And the path is strewn with wrecks, the silent glade along,
That rung not long ago with the sweet birds' cheerful song,
Now, flocking close together, they utter plaintive lays
In their own heart-stirring language, through the autumn days.

And desolation reigns over forest, field, and hill ;
And slowly rans the stream from behind the ruined mill ;
All nature seems to languish, ere stern winter holds its sway,
And we mourn for Summer's beauties that are hastening to decay.

All the flush of Summer for this year now is over,
Harvest fruits are gone, and the sweetly-scented clover,
The beautiful wild-flowers in death around are lying,
The wind a sad requiem over them is sighing.

And each cloudy day seems shorter, as the weary sun,
Tired with its ceaseless labour, sets ere the day is done,
And we with sadder spirits have now no wish to roam,
Happy in the hallow'd precincts of a cheerful home.

Sadly, where e'er we look, on every side are lying
Decaying beauties, tokens of the dead and dying ;
Mournful thrills the solemn warning through the death-like air,
To all youthful nature, "loving souls, prepare, prepare."

LEAH.

Obituary.

WE have to record the death of a local genius, Mr. Simeon Hirst, who died at Woodland Terrace, on November 10th, 1866, at the advanced age of 85 years. He was born at Holdsworth, in this parish, on November 7th, 1781, and passed the most active part of his life as a farmer, also, as a manufacturer of worsted goods, giving employment to one hundred hand loom weavers, but since the rapid introduction of machinery for weaving, Mr. Hirst has lived comfortably upon his means under a daughter's tender care. He was popularly known by his humorous poem of "Dolly's Gaon," and a prose piece entitled the "Duke of Wellington's Legacy." The former was founded on a fact and is intended to shew the effects of pride, and it is gratifying to learn that this is one of the few local productions which has obtained a place among the "Ballads of Yorkshire, ancient and modern," as it may be some incentive to those who have the power to write, even if it be a little that they may leave behind them.

"Footprints in the sands of time."

J. W.

Waiting for Me.

They say when I grieve that my sorrow is wasted,
 They tell me he's gone and will ne'er come again,
 And the pleasures with him that so briefly I tasted
 Have left but their mem'ry to soften my pain.
 He was my playmate, and he was my lover,
 No sunshine e'er gladdened if he was not there,
 And now the bright meadows we once wandered over,
 Without him seem barren, deserted, and bare ;
 O'er the wild heather
 We've rambled together,
 But now he's in Heaven and waits for me there.

At night when the stars shine so softly above me,
 I fancy his eyes through them beam on me now,
 And his voice in the wind whispers forth "still I love thee,"
 And strange shadows beckon me with them to go.
 The wild flowers we loved with dew-drops are weeping,
 As though in my sorrow they too had a share,
 And the song-birds that flit o'er the grave where he's sleeping,
 All hush their glad music whilst hovering there ;—
 And faint voices whisper
 "Weep not troubled sister
 For now he's in heaven and waits for thee there."

But why should these visions come crowding before me ?
 And why should my friends look so sadly and weep ?
 And whose is that voice that now comes to implore me
 In sorrowing accents to shake off this sleep ?
 Ah ! mother weep not, should I sleep and ne'er waken,
 Kind angels are waiting my spirit to bear,
 And thou my loved parent will not be forsaken,
 For God in his mercy will soften thy care.

Let this promise cheer thee
 Though I am not near thee,
 I shall meet him in Heaven and wait for thee there.

“THE HOLLY.”

A CHRISTMAS SONG.

Words by JAMES BLAND.

Music by E. H.

The musical score consists of three staves of music. The top staff is in common time with a key signature of one sharp. The middle staff is in common time with a key signature of one sharp. The bottom staff is in common time with a key signature of one sharp. The lyrics are as follows:

Here's jol - ly Christ - mas come a - gain, With all its joys so

Che - ry; Let us en - joy our - selves like men, Though days be dark and

Then let us choose the better part,
And sing whilst health is given,
A cheerful and contented heart
Gives no offence to heaven.

’Tis Christmas time, come fill the horn
A fig for melancholy;
If leaves are withered on the thorn,
They're green upon the holly.

A musical score for the song "Holly". The score consists of two staves of music with lyrics integrated into the vocal line. The lyrics are as follows:

drea - ry. For time that's gone we will not mourn, To do so would be
fol - ly; If there's no leaf up - on the thorn, There is up - on the
Hol - ly: If there's no leaf up - on the thorn, There is up - on the
Hol - ly.

The music is written in common time. The top staff uses a treble clef and the bottom staff uses a bass clef. The vocal line is supported by harmonic chords. The score concludes with a final section of music on the bass staff.



Popular Ecology.

A DAY'S RAMBLE AMONGST THE LOW-MOOR COAL PITS.

“ He looks abroad into the varied field
 Of nature, and, though poor perhaps compar'd
 With those whose mansions glitter in his sight,
 Calls the delightful scen'ry all his own.
 His are the mountains, and the vallies his,
 And the resplendent rivers. His t' enjoy
 With a propriety that none can feel,
 But who with a filial confidence inspir'd,
 Can lift to heaven an unpresumptive eye,
 And smiling say, ‘ My father made them all.’ ”

Such are the feelings which animate the hearts of all who are accustomed to commune with nature, in all her varying moods; and have imbibed the glorious emotions and delicious enjoyments, which the contemplation of her works, ever inspire in the bosoms of her admirers. If the present aspect of creation can call forth the deepest emotions of our hearts, and give birth to all those grand and sublime effusions which adorn the pages of our noblest poets; how much more will our admiration be exalted by the knowledge that it is but the latest phase of a long continuous series of creations (each perhaps as important in the great “ plan of Him who formed it,” as our own), whose history is recorded in the illuminated pages of the Great Stone Book? It is the glorious privilege of the geologist to turn over the pages of this strange book and gaze with ever increasing delight upon the marvellous wonders depicted therein. He above all men, may be truly said to move in a world of his own; but a world in which the present is ever linked with the past, forming one grand,

“ Stupendous whole,
 Whose body nature is and God the soul.”

Sometimes he beholds the “ monsters vast of ages past” of the great age of Reptiles rise like a dream before him, Reptiles, compared to which, the Alligators and Crocodiles of the Nile and Ganges are harmless as frogs and newts. Sometimes he roams over plateaus of the mighty deep, now elevated hundreds and thousands of feet above the level of the sea, forming stupendous tumuli, and filled with the remains of sea animals;

while at other times he wanders amid isles of palm and tree-fern, and other beautiful plants, of the great Carboniferous flora. Every season of the year is alike interesting to him, for it is by the aid of the *present*, that he interprets the *past* history of the earth. He has to do with seasons that have long been past, and with harvest that have been gathered by the hand of nature, and preserved for him in the vast storehouses of the earth. And providing it be a favourable day and he has the opportunity, he is sure to meet with some relicts of those bye-gone worlds, that will furnish "food for reflection."

So taking advantage of a holiday the day before last Christmas, I took down my hammer and bag and set out on a visit to Low-moor. It was a calm and lovely morning, but, "Cloudland and georgeous cloudland," though it presented a splendid appearance, did not seem very promising of a fine day. There was just one little oval space of azure, marbled with cloudlets of dazzling whiteness, with the sun himself in the centre covered with a veil of silver, while all the rest of the heavens were mantled with dark heavy clouds. Going along the Wakefield road, before reaching Hipperholme we see the long line of stone-quarries, stretching away from Hipperholme Station to Haugh Edge, this is the Flagstone Rock. Passing over this rock at Hipperholme, we walk over the lower strata of the Middle Coal-measures. My first visit was made to Rook's Pit, a favourite with local geologists. Here the Low-moor Better bed coal is first met with—the lowest workable bed of coal in the Middle Coal-measures. Turning up a bye-lane, we pass an ancient mansion, built in the Elizabethian style and conspicuous, on account of its many windows with their stone mullions and transoms, and also by its *internal* porch. Instead of projecting from the building as porches usually do, it forms part of the building and has a chamber over it. The coal-pit is just behind; but some new pits have been sunk at the upper end of the field, and in sinking them and driving new mines to the coal-beds, a great quantity of shale has been brought to the surface—in this shale many interesting remains of fish, such as bones, teeth, scales, &c., have been found. To-day, I was not fortunate in finding any fossils worth taking, for it appears, that none of the shale which contains them has been brought up to the surface lately; but in former visits I have been more successful. There are some fine specimens in my cabinet which I found here, including a shield shaped fish-scale, and part of one of the largest fish-teeth I have ever yet found.

I next crossed over the valley by Pickle Bridge Station, passed the

pretty gothic church which is pleasantly situated on the brow of the hill overlooking Lightcliffe; and went through Wyke to a coal-pit on the other side of the village. Here the Black-bed coal—40 yards above the Better bed coal—is met with about 36 yards below the surface of the ground. Over the Black-bed coal lies the celebrated iron-stone-bed of Low-moor. The ironstone is brought to the surface and shunted in great heaps, and afterwards spread over the ground in a layer about a yard in thickness, to "weather." When first brought up from the mine it is coated with a clayey shale, exposure to the atmosphere, causes this shale to crumble away and leave the ironstone. The length of time required for this process and the number of turnings, depends upon the supply and demand for the material. These shales and ironstones contain a great number of fossil plants; and it is by carefully looking over these *shale-heaps* and *ironstone-beds*, that we find those beautiful fossil-plants which adorn the cabinets of our local collectors. We have no need to go down the pits to find them, for the miner brings them up to the surface for us, and all we have to do, is to look for them there.

The young student must not however, expect too much, for I have often walked over these beds without finding any fossils worth taking home; but practice and experience are the same in geology as in all other pursuits, and now-a-days it is a poor journey indeed that does not furnish my bag with specimens worth preserving.

The shale brought to the surface while working the Better-bed coal contains animal remains chiefly bones, scales and teeth of fish, but portions of the vertebra of a reptile have been found by my friend Mr Rushworth, of Hipperholme. He has also found among a number of other rare fossils—a very good specimen, of the jaw of *Magalichthys Hibberti* with three large teeth fixed in it. The larger teeth and jawbones are very rarely met with, but during a visit, last summer to one of these shale-heaps, I picked up a dozen specimens of the smaller sized fish-teeth besides a number of fish-scales, and other fossils. The shales and ironstone nodules, above the Black-bed coal also contain fossil shells, such as "Unios" or as some persons call them "Anthracosia." Sometimes they occur in thick bands, in the ironstone—called by the miners "mussel bands." Two well defined species are found here, one about the size of a common mussel and the other about one-fourth as large. In some places another kind (*Cardina*) occurs also in bands, resembling our common cockle-shell; the strata in which they occur are called by miners the "cockle-bands."

The occurrence of these *Anthracosia* and *Cardina*, the former brackishwater-shells and the latter marine-shells, especially when taken along with the character of the fish remains, indicate that the secoal strata were deposited in some vast estuary or brackishwater sea similar to the Baltic or Black sea. It is a well-known fact amongst naturalists, that marine and freshwater fish are often found living together in these *neutral grounds* as we may term them. In the Baltic sea for instance, which is only about one-third as salt as ordinary sea-water, the common river perch (*perca fluviatilis*) was caught last summer, along with a number of undoubtedly marine fish, which consisted of the pipe-fish, blenny, prawns, &c.*

Knowing this fact then, we need not be surprised to find both marine and freshwater animals in our coal strata, which from the character of their vegetable remains are believed by our best geologists to have been deposited in wide estuaries or brackishwater seas.

But to return to the Coal-pit. After searching amongst the ironstone a few minutes: I found a fine specimen of *Sigillaria Pachyderma* which I wrapped up and "bagged." I passed over a number of fragments of *Ulodendra*, *Calamites*, and *Lepidodendra* as I had got better specimens at home. I also found some very fine specimens of "Unios." They lay softly embedded in slabs of shale, both singly and in groups of about half a dozen and better specimens I never met with, so selecting one of the smaller slabs I carefully broke away the unnecessary shale, so as to reduce it to a convenient size for my bag. It is always best to reduce the specimens to the size best suited for the cabinet while you are on the spot, where fresh ones may be had in case of accident. The smaller species of "Unios" were also very plentiful, in these shales. I had not been engaged here very long, ere a shower of rain fell, but happily it soon cleared up and the rest of the day proved fine. Not being able to meet with anything more here, I pursued my journey still keeping to the east, until I had got fairly into the midst of the Low-moor collieries. As far as the eye can see on every side coal-pits are visible. Not a picturesque nook, meadow or hill-side but is occupied by tall chimneys and engine-houses and surrounded by acres of the "black-mineral."

The country about here, is a complete network of railways, stretching away for miles on either hand. The main line runs from Wibsey Slack to the furnaces at Low-moor and from thence down to Brighouse. The

* See a paper on this subject by Mr. Alfred Lloyd, in *Science, Gossip*, July 1, 1866.

Coal and Ironstone are brought from the different pits to Low-moor in waggons which are drawn by stationary engines, some scores of miles of wire roping being used for that purpose. The further we go to the south-east and the deeper the coal sinks in the earth. Some of the coal-pits about here being above 200 yards in depth.

In order to give the reader a further illustration of the "succession of rocks" in our neighbourhood I will just give a brief summary of the different formations from Halifax to Low-moor. Halifax as we have seen in a former paper, stands upon the Millstone grit-rock, upon that rock lie about 200 yards of Lower Coal-strata occupying the slopes of Ringby and Beacon hills which are again covered by the Flagstone-rock of Ringby and Northowram. These rocks sink below the surface, beyond Hipperholme and are covered by the Middle Coal-measures. At the place where I am now standing, there will be nearly 300 yards of these Middle Coal-strata resting upon the Flagstone-rock and consequently about 500 yards of strata lying upon the Millstone-grit-rock. This estimate agrees pretty nearly with the well-known dip of the strata, -about one yard in twenty or nearly ninety yards per mile to the south east, this place being somewhere between five and six miles in the above direction from Halifax and about the same height above the sea level. Of course, the above summary is but a rough approximation and has no pretensions to mathematical accuracy.

If we travel further to the south-east these Middle Coal-strata are in turn covered by the Upper Coal-measures, and finally the great Carboniferous system disappears under the Magnesium Limestone.

After rambling about from pit to pit, and meeting with varying success I at length arrived at a great heap of shale and stone, which had been brought up from a pit now in process of sinking. Here I found a great number of fossil ferns. It is truly wonderful how fresh and perfect they look (and the same may be said of most fossils) when first exposed to the light of day, after being such a vast length of time enveloped in their stony folds. You could almost fancy they were but of last years growth, though they never look so well again "Yet a thing of beauty is a joy for ever." They were all small in size, the following genera being most prevalent:—*Spenopteris*, *Neuropteris* and *Pecopteris*. I also found one specimen of *Asterophilites* or Star fern and a few specimens of what seem to be Clubmosses. We have no species in existence in our day that bears any resemblance to these fossils; the nearest to them in form being our Spleenworts, Buckler, and Shield ferns. Fossil ferns are named from the

character of the leaflets or fronds. Thus Spenopteris means *wedge* fern, its leaves resembling a wedge; Pecopteris, *comb* fern and Neuropteris *nerve* fern, &c.

I also saw many fine specimens of Stigmaria ficoides with the rootlets attached. I have seen many cart-loads of these Stigmarian roots in the Northowram quarries but never saw them *in situ* before, with these appendages, and I was sorry that in consequence of being so heavily laden, I could not take a specimen with me. Calamites occurred in great abundance; also a few specimens of Lepidodendra. I also found a number of fossil fruits, including Lepidostrobus ornatus *attached* to a branch of a Lepidodendron, but unfortunately it broke while being got out of the shaly stone; and a few Cardiocarpons or heart shaped fruit. The time wore gently away and twilight began to steal upon me ere I had packed up my precious "medals of creation." The result of my ramble had been highly satisfactory and I set off back again with a sense of pleasure, and exhilaration of spirits that none can imagine but those who can enjoy a winter day's excursion in the country.

J. S.

Home.

Home, home,
Silvery tone,
Murmuring peace and rest,
Glad'ning the anxious breast,
Work is past,
Rest at last.

Home, home,
Low sweet tone,
Around our hearts it weaves
A wreath of fragrant leaves,
That through life's day,
Fade not away.

Home, home,
Musical tone,
Striking the chords of love,
Raising our hearts above
Earth and its strife,
To a holier life.

Home, home,
Peaceful tone,
We've watched our fairest flowers,
Transplanted to God's bowers;
Safely sleeping,
In His keeping.

Home, home,
Abiding home,
No sadness, sickness there;
No death, no partings where
Shines ever bright,
God's glorious light.

Home, home,
Blessed home,
When the death bell's pealing,
Our life's work sealing,
Then the meeting,
And angel's greeting.

LEAH.

"In Memoriam."

Weep tuneful nine ! unloose your founts of woe ;—
 Mourn o'er this modern Sampson's overthrow.
 Before whose jawbone men have bow'd the head
 In fear and wonder. Mourn for he is dead.
 Dead yet alive,—himself to sigh with you,
 Seeing his life as some dissolving view
 Whose tints in mingling melting are perplexed,
 Their charms all gone—uncertain of "what next."
 From side to side his fiery bolts have flown,
 Borne by his couriers fleetly up and down ;—
 Now, like some brazen, " animated bust "
 Thrown from its pedestal—he lies in dust.
 The fiery glow spread o'er his face divine
 Is hid from view, no more alas ! to shine.
 Full well ye know, ye nymphs of love and song
 Whose hand has wrought this mighty Sampson wrong ;—
 'Twas not the loss of locks from off his head,
 ('Twas loss of what should be within, instead.)
 That gave him to the Philistines for scorn,
 To bear their gibes, and weak, defenceless, mourn.
 False " Delilah ! " 'twere well to hide thy face ;—
 Who shall henceforth instruct this wayward race ?
 To whom for moral teachings shall we fly ?
 On whom as virtues champion fix our eye ?
 Who now shall warn our rising youth of snares
 Laid in life's path to catch them unawares ?
 The question speeds from anxious mouth to mouth ;—
 No answer comes ;—from east, west, north and south
 The query rings— but still in vain they ask,
 Till soft-voic'd echo, wearied, leaves her task.
 Then mourn ye nine, let tears like torrents run ;
 Weep, wail and groan, for Sampson is undone.

Philipic.

O TEMPORA ! O MORES !

If a man discover an antidote which will expel self-imposed wretchedness, what shall be his reward ? We can fancy some good humoured friend saying—" O let the inventor have the monopoly of it, and if the demand be equal to the complaint he must realise a competency, but says another who growls by way of preface—" O hang him high as Haman," I hate those confounded sophists who try to cheata man out of his misery,"—hush you child of a numerous family we heard the voice of your prototype ages ago in the wilderness of Sin, in the vale of Rephidim, and when Moses lingered upon Mount Sinai. Well we may be singular in our opinions, but shall brave the ridicule that is oft-times attached to singularity of opinion, and state our convictions that to be happy or content ; (synonymous terms) with the circumstances in which providence has plaeed us, we should at times call up in our minds eye a true picture of the real misery of many of our fellow-creatures, how thousands are suffering death and destitution, friendless, homeless, the miserable offspring may be of still more wretched parents, the only legacy they could leave, an entailed estate, hardly to be alienated—in this protasis, we do not allude to that portion of the community known by the generic blatant name—" Working Class." No, there is a lower strata, a great portion of whom by a sad concurrence of accidents are from birth the chosen companions of misery, to them the pleasures of childhood are an utter blank, they inhabit the alleys, courts, cellars and pestiferous nooks and clefts of large towns ; nor are the agricultural districts innocent of their manufacture ; what hereditary simple faces, the negative index of an intelligence unawakened by education ; let those who are desirous of knowing the philosophy of the causes which operate to make our lines fall in pleasant places or otherwise, peruse Henry Mayhew's work, "London labour and the London poor," and doubtless they will find there an antidote to self-imposed wretchedness. Why should you be for ever grumbling at your ill luck, your friends better fortune, the weather, the ingratitude and pride of relations, with a multitude of causes that really affect and operate upon persons whose organization is peculiar to themselves ; be as diligent in turning to good account the means

which the wants, cravings, and philanthropy of society place at your disposal, as you have been the reverse, whilst you reflect upon what might have been your lot, had not the seeming chance of birth? Say rather an unrecognized providence, placed you where vice alone can rob you of a fair share of human happiness. At this moment we address ourselves to that enormous hybrid pet-ycled working man; we believe that if you use fairly the means you possess; you may, nay ought to be (it depends greatly upon your sobriety) well fed, housed, and comfortably clothed by day and night; and few we think will complain that mental recreation is not placed within their means nor dare they say—"No man careth for my soul."

We are not going to attempt to prove this England of ours, a Working Man's Paradise. No, Heaven forbid that it should be so! however grand and benevolent its institutions. But the worst of his class is the envious grumbler, the relish of whose life is persistently inverted by the sight of the happiness or success which is a pleasure to minds exempt from his miserable condition; is it possible to comfort you O pigheaded man, by telling that it has often happened, whilst you were envying another for his seeming wealth and advantages he had in his heart, in his affluent home, may be in his ledger, or some member of his family, the germ of a cankering care that preys like an undying worm at the root of his happiness, blasting in old age the silent hopes of his manhood; if comfort can be extracted from a miserable truth, apply the antidote, but reflect that we are all subject to the evils of a mutable world.

An ancient axiom says ere we can pronounce upon the happiness, goodness, virtue or otherwise of a man, he must be gathered to his fathers. A proposition evident to all readers of history, and oft-times painfully exemplified in the lives of our contemporaries; what instances we have of men who in the earlier part of their career have had their every action plan and scheme dogged by misfortune; pitied by some, laughed at by others, but envied by none; the tenth commandment being rigidly obeyed. Anon the sun of good fortune rises upon him, dispelling the old influences that seemed to have marred his plans; the sheen of prosperity is about his labours, and Midas-like whatever he touches is turned to gold; and the eyes that before time did not envy, are now obscured with its motes and mists, which superinducing obtusion of the reasoning faculties prevents a man acknowledging what is due to his fellow-men.

We know that just now the country is resonant of fine speeches and

glowing schemes upon platforms and paper, having for their ostensible purpose the enfranchisement of fellow-men, great events are "coming off," many agencies are at work on their behalf, and we who have fair claim to the title of "Working-men" may with my Lord Brougham demand our share of benefits, though we may not desire to be identified with the "great unwashed" large numbers of whom might if they desired it, be better clothed in their families, at the same time improving the furnishing of their cottage homes. It is probable that the future readers of the history of these times will find its most striking incidents, connected with, and intended for the well being of the masses; at the same time unmusical as it may sound, much as it may jar upon auditory nerves that have listened of late to the carressing sentences of the will-be popular orator; it must also be told; (nor do we need such an apocalyptic writing as issued from Patmos to Thyatira to tell us) that we are great in crime, social crimes; not committed by the rude illiterate man, but the learned, the well-informed and educated man; we are mighty in strong drink and most repulsive in its wedded concomitants; such as make the statistics of police-courts and pauperism an unpleasant study; because there is little, if any diminution in flagrancy or numbers; strange that it should be so? Our country is prosperous, money in the shape of good wages permeate briskly amongst us, whilst mighty efforts are being put forth by the ablest and best of her children; it would seem as though the upas influence of some agent counteracted the good, ere it reaches the poisonous underlying strata of vice and ignorance, helpless or unconquerable. Let us stand for a moment upon the edge of a political horizon, and behold the would-be ruling firmamental stars shooting hither and thither before the upturned gaze of millions; then mark as these stars seem to near their decline "in western cadence low,"—they shout Reform! and borne on that buoyant sound they seek again their lost meridian. There is another horizon, we grant the first is a sensible one, but this is the real, it has a wider circle, and free from the horizontal misty air and mirage of politics; 'tis the moral universal horizon of a goodman's life, the consistent life of every grade; this is the reform we greatly need, alike the senator, the divine, the bank director, the physician, the editor, the lawyer, down to the veriest stammerers who frequent the penny news-room. Reform we suppose, is expected to make folks good and happy? But says one—"A man's life consisteth not in the abundance of the things he possesseth,—which means, we take it, that it is right to estimate th

happiness of a man not by what he has or says, but by what he is; the exercise of a man's franchise never gave a pleasure equal to that which springs from the doing of a charitable deed from motives of humanity and love. A learned and euphonious professor recently said,—“ Beware of Democracy, behold its vices and crimes. Another as learned and more comprehensive replies—“ Behold Democracy, let us imitate its sublime virtues. We gather then that no democracy is good for the citizen that fails to teach and practice governmentally the ethics of christianity. We believe that the surest way to reform the masses, is for the individual to reform himself. Physiology teaches that good citizens perpetuate themselves, so in like manner their vile antipodes. Men whose commercial lives are laden with the odour of Bankruptcy Courts are rarely the begetters of honourable tradesmen. True, vices are not the sole property of a particular class, though all sections of society have their besetting sins, alike the Patrician and Plebian. Primogeniture holds its broad acres in sacred trust for eldest born, whilst near and dear kinsmen are kindly quartered upon the ever increasing perennial flow of tithes and taxes which stream from the nations side; a system which undoubtedly tends greatly to strengthen an oligarchy. If we descend in the social scale we find vast numbers of tradesmen and merchants incurring obligations and embarking in speculations, which they have no right to do, whilst they knowingly permit their families to exceed their income. This is a great social crime and calls loudly for reform, the majority of these should forfeit their franchise as they are manifestly unfit if justice were done, to have a voice either in municipal or state elections, they cannot have a true consciousness of fetterless independence; true economy being as vital a duty of the citizen as of the state, giving stability and rendering justice; whilst unwarranted expenditure, always an injustice, “ makes countless thousands mourn.”

In every provincial town (we need not to seek them in the city) we find men occupying good social positions, giving themselves out as authorities upon many subjects, trusted by society, which takes them at their own valuation; even after a full discovery of their miching-malicho ; this ought not to be; we care not what he may write himself, the possession of much metalic ore, the holder of a doctor's degree, poor-law guardian, or head of an editorial staff, we think that the march of mind should never be allowed to over-ride with impunity the sacred laws which bind society and inspire commerce with confidence; on such as these the hammer of

public opinion ought to fall like the hammer of the great Thor; seeing that the laws of our highly civilized country are impotent in these matters. We write not of particular individuals, but because of an inverted love, akin to indignation, which we have for these vile principles, "let the galled jade wince." We think of founding a new school of reform and shall advertise for a "self-acting minder"—as secretary, should he have a family of "pieceers" all the better, it is an excellent matter to have a secretary careful not to have too many ends broken. A word about your mere party-man, what is he? Will he keep his engagements, is he consistent in thought or conduct, does he sacrifice his inclination to save his honour or maintain his integrity before God? Answer ye who best can tell, as to the municipal politician we trust the creature is becoming extinct, we never properly understood the undefinable laws and ethics which rule at these elections; they be customs which are the plague of wise men, and the delight of fools. And now enquires a reader whose sublime patience has enabled him to wade up to this point, are you a reformer? Under qualification we answer in the affirmative, and we believe that our country is about to pass through another grand climacter; grand because free from bloodshed; we rejoice over the improvement of our country, having faith in our countrymen that they will be able to break through the traditional political meshes woven many years ago, when courts arrayed themselves against common sense, humanity, and the people, down to that period when Bamfyeld Moore Carew was king of the gypsies, and quaternion George was first magistrate of these realms and the most finished gentleman in Europe; the latter statement we cannot consider complimentary to his contemporaries, and which posterity and christianity denies. 'Tis an immortal truism, exemplified in the history of kings and politicians, that *Ipse dixit* proclaims itself by its flatterers, but *Ipso facto* turning on a full glare of truthful light proveth it false. Our parting words are not to the man who claims the peculiar merit of not doing wrong and at the same time avoiding that which is right; not to him who believes himself free and is simply content to be so alone; no they are to him who believes himself bound; and to that man we say, scrutinize well your bonds, then without doubt you will find a necessity for a reform which if you achieve will confer greater things than even the political franchise.

Scientific Gossip.

MAGNETIC POLARITY OF RIFLES.—Mr. Spiller one of the Chemists in the Royal Arsenal, Woolwich, has observed that all the rifle barrels used by the Arsenal Volunteers exhibit, after repeated firing, decided magnetic properties; the region of the breech being possessed of north polarity. This appears to be due to the repeated concussions caused by the explosion of the powder, whilst the rifles are held in the direction of the range, which runs nearly parallel to the magnetic meridian.

A FLASH OF LIGHTNING.—A *Snatterer* writes:—A stout iron hook part of a set of block pulleys, snapped while an iron casting weighing near four tons was being lifted. The iron was found defective in texture and in forging. At the moment of breaking, a bright flash of light was distinctly seen between the broken fragments. Is this a usual phenomenon? If so, what is its nature, or how accounted for? This occurred in broad daylight, with fine drizzling rain falling at the time; and the flash was described as from eighteen inches to two feet long.

GEOLGY.—The following are the dimensions of the skeleton of a Mastodon just discovered 50 feet below the surface of a peat-bed near Troy. Tusks, 6 feet long, and 9 inches in diameter. Ribs about 4 feet long, the largest 4 feet 9 inches. Upper jawbone 4 feet 9 inches long, and 3 feet across the forehead. The sockets of the eyes are described as nearly large enough to admit a man's head. Hip-bone 5 feet long; shoulder-blades 2 feet 9 inches. Diameter of leg-bone at the knee-joint 13 inches. The vertebræ 18 inches diameter.

It is ascertained that nearly all the Chinese coalfield belongs to the Mesozoic period, no carboniferous fossils being present, but their place being supplied by cycadeous plants.

BOTANY—*Skeleton Leaves.*—“The following method has been communicated to the Botanical Society of Edinburgh:—A solution of caustic soda is made by dissolving 3 oz. of washing-soda in 2 pints of boiling water, and adding $1\frac{1}{2}$ oz. of quicklime, previously slaked; boil for 10 minutes, decant the clear solution, and bring it to the boil. During ebullition add the leaves; boil briskly for some time—say an hour—occasionally adding hot water to supply the place of that lost by evaporation. Take out a leaf and put it into a vessel of water; rub it between the fingers under the water, if the epidermis and parenchyma separate easily, the rest of the leaves may be removed from the solution, and treated in the same way; but if not, then the boiling must be continued for some time longer. To bleach the skeleton, mix about a drachm of chloride of lime, with a pint of water, adding sufficient acetic acid to liberate the chlorine, steep the leaves in this till they are whitened (about 10 minutes), taking care not to let them stay in too long; otherwise they are apt to become brittle. Put them into clean water, and float them out on pieces of paper. Lastly, remove them from the paper before they are quite dry, and place them in a book or botanical press. Dr. G. Dickson.” Hardwick's Science Gossip.

A Geological Rambles to Ingleborough.

HAVING in former papers, given slight sketches of the Coal-measures and Millstone-grit, we purpose in this paper, to give you the result of a ramble over the mountain limestone district of Craven. The great Carboniferous system of Yorkshire consists of these three formations, Halifax stands on the middle one,—the Millstone-grit. Now as all the strata of Yorkshire have an almost uniform *dip* or inclination of about 3 degrees to the south-east, it follows, that the further we go to the south-east and the higher we get in the geological scale, or in other words the newer formations we meet with; and *vice versa* the further we go the north-west and the lower, or older formations we meet with. Hence in going north-west from Halifax we walk over the Millstone-grit rocks until we get to Skipton where in consequence of the rocks having been tilted up in the form of an anticlinal axis, or in simpler words—like the arch of a bridge, we meet with the limestone rocks. About ten miles further north however we arrive at Malham, where the mountain limestone assumes its true mountainous character, having been lifted up by the Craven Fault, into a great plateau, and forming the great watershed from whence most of the rivers of Yorkshire and Lancashire take their rise. In some places, as in the Settle Crags, and Malham Cove forming perpendicular cliffs of limestone, nearly 300 feet in height and in others as at Gordale Scar, forming vast clefts, through whose awful chasms the mountain torrents struggle, forming cataracts of great beauty, leaping from ledges of limestone rock, into the clear pools below and then rushing through their rocky beds on their ways to the valleys.

This district possesses charms independent of its geology or natural history and if the account of our ramble has the effect of inducing any of our members to visit it, the little exertion it has cost to write it will not have been in vain, for we should dearly like to see more of them, take advantage of our summer excursions, to visit some of those beautiful and interesting places.

The lover of Nature, whether following the dictates of a blind instinct or has his judgment and taste matured by reason and science, no matter what his condition may be,—is never so happy as when leaving the

turmoil and noise of the busy town, for a few days quiet ramble in the country. In threading through the streets of our large towns we are reminded at every step of man's doings, of his power and wealth. But when we have got well into the country, especially among the hills and dales of Craven, look around us which way we may, what glorious prospects meet our wondering gaze! Wild heathery moorlands, and majestic hills mounting heavenwards, faced with stupendous gray crags, which, here and there, are relieved by clusters of fir and mountain ash. And valleys with silvery streams, merrily leaping from crag to crag, in whose sylvan dells, those solitary, yet beautiful birds, the gray wag-tail and the dipper love to dwell. While far adown the widening valleys are green fields and cornlands interspersed with many a wooded copse; through which the little beck born amongst the mountains, slowly meanders, receiving branch after branch, until it swells into a mighty river, that may be traced far in the dim vista, until its glittering waters are lost in the ocean. It is amongst such delightful scenery as this that we *feel* the power of the words "God made the country." Man and the works of man dwindle into insignificance when Nature spreads her manifold beauties before us. What are even those magnificent works of art and industry which all great towns afford in comparison to such gigantic works of Nature as Malham Cove, Gordale Scar, Kilnsey Crag and many other noble scenes in Craven? While we stand before them in reverence and awe, we see as well as feel, that a mightier hand than man's has been the builder and a more gigantic intellect the designer. Nor is it alone while wandering amid such glorious scenes as these, that we feel their soothing charms. For often while surrounded by the cares and anxieties of toil and business, the recollection of the many happy days spent amongst them infuses into our flagging minds fresh life and vigour. While Nature yields such true and lasting enjoyments, the naturalist, may well exclaim, in the sublime language of Wordsworth,

"Therefore I am still
A lover of the meadows and the woods,
And mountains; of all the mighty world
Of eye and ear, both what they half create,
And what perceive; well pleased to recognize
In Nature and the language of the sense,
The anchor of my purest thoughts, the nurse,
The guide, the guardian of my heart and soul
Of all my moral being."

We enter Airedale at Shipley and from here up to Clapham, the scenery here is most splendid. On the right hand side going up, lies the celebrated Shipley Glen. As we near Bingley, the scenery is extremely picturesque. Deep valleys and extensive woods abound on either hand which teem with interesting objects of natural history. Such delightful scenery as this makes us wish that we had sufficient leisure to walk all the way, and ramble at ease under the shade of those towering trees; or among the green meadows, while we gather some of the beautiful ferns and wild flowers which grow so luxuriantly about here. But, we are thankful that we can be taken in a few hours, by the "iron-horse" to such glorious prospects as these, and thus be enabled to spend our few days holiday, to the best advantage. Airedale appears to have been at one time, the bed of a great river, judging from the great depth of the alluvial sand, which is exposed along the sides of the railway. It must have taken a vast period, to have deposited such a depth of sand, by the ordinary action of rivers, over such an area as this valley.

Professor Phillips says, that a canoe was found embedded in this sand, 20 feet below the surface and, "In this same valley lie nearly complete skeletons of the extinct *hippopotamus major*; in another place, jaws and bones of deers, hazel wood and nuts, some of them petrified. Perhaps man was contemporary with this extinct *hippopotamus*." As we know that the *hippopotamus* was accompanied by the rhinoceros, mastodon, tapir, boar, horse, ox, *hyæna*, the great cave bear and other wild and savage animals; if the old Briton, the owner of the said canoe, was really contemporary with those ferocious beasts, he must indeed have had a hard struggle for "existence." "For" as another writer says, "if he essayed to travel by rivers, he had to run the risk of being swamped in his canoe, by herds of river-horses; or if he went by land, there was danger of being trampled to death by immense elephants, gored by rhinoceros, tossed by bulls, two or three times as large as any prize ox, with the contingency of having to take up his quarters in the lair of some monstrous *hyæna* or cave-bear."

Poor fellow, we thought as we dashed along at the rate of ten or fifteen miles an hour, what a contrast between his day and ours? We certainly, have no desire to go back to those good old times,

"Ere the base laws of servitude began
When wild in woods the noble savage ran,"

so often extolled by young poets and Utopian politicians. We arrived at

Skipton by half-past eight. This train goes no further; and as there is not another train northwards for two hours; an opportunity is thus afforded of visiting the fine old church and castle. But as we had visited Skipton several times before, we resolved to walk up the valley as far as Gargrave. It was a glorious morning, and we bounded along over the hard and nearly level road at a merry pace. The valley here is about a mile in width and it is bounded on each side by hills of Millstone-grit, which gradually increase in height as we get higher up the valley. They are mostly covered with verdure, but here and there massive crags of grit stand out in bold relief; and to the north the grey limestone cliffs for which Craven is famous, begin to appear.

The merest novice in geology would soon find out that he was upon a different formation, for the very walls about Skipton are to a great extent composed of fossil shells and stems of encrinites.

We thoroughly enjoyed our walk to Gargrave; and after a short ramble about the village, we went to the station and booked for Clapham, where we arrived about half-past twelve. We set out at once for Ingleborough. But a short distance from the station, we sat down by the side of a small stream and got our lunch; and examined our ordnance maps, our faithful guides in many a pleasant ramble, over those trackless hills. We took straight up the sheep pastures towards the shoulder of a hill from whence we expected to see Ingleborough. About an hour's walking and climbing brought us to the crest of the hill; when we beheld for the first time, the steep slopes of Ingleborough, with its craggy summit standing like a huge castle in the clear blue sky. It appeared only a few field lengths off; but by this time we had got somewhat used to these deceptive appearances, and we knew that we were nearly two miles from its lofty summit. We were now in the midst of a boggy moor, and fatiguing work it was to wade knee deep through the heather. Yet it was not much worse than some parts of Warley and Blackstone-edge Moors, excepting that it was steeper. It was much drier than we had been led to expect, it certainly did not, as an old writer says, "emit water at every pore." But the numerous dried up pools, told us, that we were fortunate in finding it so dry.

We reached the summit about three o'clock; and after walking all round it, we sat down on the ruins of the old beacon, to rest ourselves, and admire at leisure the magnificent prospects around us. The summit of Ingleborough is flat and it is covered with a scanty herbage on which

a few half wild sheep were grazing. It is about 400 yards long by about 250 yards wide. It is supposed to have been the site of an old British hill-fort. We saw what has been pointed out as, the remains of the wall that encircled it, and it certainly has the appearance of having been the work of hands.

The old writers used to prodigiously magnify the heights of these mountains. Ingleborough was supposed to be the highest mountain in Britain, its bold imposing position, perhaps gave rise to this erroneous supposition. Even old Mr. Jeffery's gives its height to be one mile, Whernside one mile and twenty yards; and Pennygant twenty yards less than a mile. But the true heights according to the ordnance maps are as follows:—Whernside 2414 feet; Ingleborough 2373 feet; and Pennygant 2272 feet.

The deep vale of Greta separates Ingleborough from Whernside, which seems to be within a stone throw, and yet the map tells us that it is four long miles distant; while Pennygant to the south-east seems very little further, though we know that six long and dreary miles intervene between us and its summit. But so deceptive are the distances between those mountains, that it requires some experience, before we can fully believe they are so great. The day was somewhat hazy and we could see very little beyond Ingleton, but still the prospect was grand and imposing and such as to amply repay the trouble of ascending.

The geological formation of Ingleborough and the surrounding district belongs to the mountain limestone series which repose on the slate rock, in a great mass from 500 to 600 feet in thickness; upon that lies a great thickness of shales, and sandstones with alternations of beds of limestone; the whole being crowned by grit-rocks. This district owes its peculiar features to the great Craven Fault, which begins a little above Ingleton and passes through Craven to Threshfield a distance of thirty miles; and has thrown up the strata to the north-east as much as 3,000 feet at Ingleborough and Pennygant; 1000 feet at Settle and Malham, and 600 feet at Threshfield where it is lost in a number of smaller ones. One curious effect of this Fault is seen in the coal-field just below Ingleton. These coal beds are 2,000 feet below where we are now standing, and yet the lowest bed of these coal-strata rests upon Millstone-grit, the same rock we are now standing on. There is another little coal-field, on the other side of this great limestone tract, at Hartley-burn on the south Tyne, which is the exact counterpart of this Ingleton one. It has been

thrown down 2,000 feet by the Pennine Fault, and abuts against an almost perpendicular wall of limestone rock. It is very probable that, before these dislocations took place, the whole of the country between these coal-fields was occupied by coal-strata; or in other words that these two coal-fields are but the remains of a great coal-field which stretched right across the country from Ingleton to Hartley-burn. If this be a fact, what has become of all that vast quantity of strata amounting to nearly a thousand feet in thickness which once covered Whernside, Ingleborough and Pennygant? And when we add also, the vast quantity of strata which have undoubtedly been scooped out of these deep valleys, even the geologist, accustomed as he is to such speculations, stands amazed at the enormous period which it must have taken to accomplish such a mighty task; and we see indeed what a powerful agent denudation has been in the economy of the world.*

We left the summit about six o'clock, and descended to a limestone ridge a short distance below, which yielded us a number of *Terebratulæ* and other fossil shells. About a mile lower down, the limestone rock forms a raised terrace, of great thickness; here we set to work with hammers and chisels and soon reaped a rich harvest of marine shells belonging to the genera *Producta*, *Spirifera* *Terebratulæ*, *Inoceramus*, and other characteristic limestone fossils. Almost every blow of the hammer brought out a *Spirifer*, or a *Productus*. Some pieces of rock were composed almost entirely of shells and fragments of shells. After filling our bags and every available pocket, we set out for Ingleton, and arrived at the Bay Horse Inn, about ten o'clock.

J. S.

* For a fuller description of the geology and scenery of this district, I must refer the reader to Professor Phillips's great work on the Geology of Yorkshire, and to his smaller work on the Rivers and Mountains of Yorkshire to which we are indebted for many of the facts in the last paragraph.

(TO BE CONTINUED.)

Botany.

Ye field flowers ! the gardens eclipse you, 'tis true,
 Yet, wildness of Nature, I dote upon you,
 For ye waft me to summers of old,
 When the earth teem'd around me with fairy delight,
 And when daisies and buttercups a'adden'd my sight,
 Like treasures of silver and gold.

CAMPBELL.

THE study of Botany has been peculiarly fascinating to all ages and conditions, and from many passages in ancient history we learn that gardens and plants have been the study of wise men and princes. It is declared of Solomon, "that he spake of trees from the cedar of Lebanon to the hyssop that springeth out of the wall," and our Lord taught one of his brightest lessons when he exhorted the multitude to "consider the lilies of the field how they grow they toil not neither do they spin, and yet Solomon in all his glory was not arrayed like one of these"; thus showing the excellence of the wild and beautiful lily of the Levant (the *Amaryllis lutea*) over the glory of the wisest King of Israel. It is known that Pliny wrote thirty-seven books on natural history and sixteen relate to plants. Plutarch mentions that Artaxerxes and Lucullus had their large and extensive gardens arranged and planted with all that art and nature could combine. Flowers possessing fragrant qualities, particularly Roses, were in great repute among the ancients. A Babylonian Queen whose native country possessed all the charms of mountain scenery, was disappointed with the flat appearance of her new dominions, which circumstance gave rise to the splendid hanging gardens, laid out on raised terraces and upheld by large pillars, these gardens with the great walls of Babylon were esteemed as one of the seven wonders of the world. At the present day the fine old parks which surround the abbeys and mansions of England are special features in its scenery. It is worthy of notice that gardens have been the scene of some remarkable scriptural events. The happy abode of our first parents was in the garden of Eden which place also witnessed their dreadful temptation. Christ's agony occurred in the garden of Gethsemane, and his burial and resurrection took place in the garden of Joseph of Arimathea. The great continental gardens of Europe serve to illustrate the national taste for this branch of natural science and the names of Linnaeus and Smith, are individual examples. The vegetable kingdom affords numerous advantages to its students, its very beginnings being easy, cheap, healthful and delightful, its pleasures are spread around us at every step, and there is no part of the year when its study may not be conducted with pleasure and profit. The summer pours out a continual succession of flowers, and the wintry months clothe the wall-tops with

miniature forests of mosses, displaying such a beauty of form and structure that cannot fail to be admired. As an important branch of mental culture the study of Botany induces ideas of order, arrangement and discrimination, such as can only be found in the natural world. Smith mentions that "in Sweden natural history is the study by which men rise to preferment and there are no people with more acute or better regulated minds than the Swedes." The great Linnæus was a Swede who by his own observation discovered the insect which destroyed the Swedish government many thousand pounds worth of timber in one year, and that by immersing the timber in water during the season when the fly laid its eggs all its ravages were stopped. We are told also how this great observer by his botanical knowledge detected the cause of a dreadful disease among the horned cattle of the north of Lapland which had previously been thought irremediable. There are advantages arising to ourselves from a study of the vegetable kingdom, the greater part of our food, our physic, and our luxuries together with materials afforded for painting, dyeing, and articles of clothing which shew us that it is widely adapted to the uses and pleasures of mankind. The hard names with which plants are surrounded sometimes act as a barrier to a closer acquaintance with the subject, but this fear is partially unfounded, many of our local plants being known by names, familiar as household words, indicating their character in the most homely style. Thus we have Gout-weed, Hearts-ease, Fever-few, All-good, marking a sympathy with disease, which in the days of the old herbalists when much superstition was associated with plants went far to comfort the afflicted in their grief and pain. Then we have names which denote the delicious quality of viands and substantial eatables, *viz* :—Roast-beef plant, Lambs-quarters, Fat-hen, Sauce-alone, Ox-tongue, Way-bread, Codlins and cream, and we have terms of endearment and friendship in Forget-me-not, Sweet William, Mari-gold, Herb Robert. In the collecting and preserving these common names, the compilers of our present English Botany have been specially studious, and we cannot fail to notice that while the terms of modern science waver and shift their meaning these old local names have lasted and are still abiding in their original signification. Some acquaintance with Latin is valuable and necessary in acquiring a knowledge of Botany, and the study of Latin words is highly remunerative with interesting information. The parish of Halifax being much diversified with hills, dales, and moorlands whose elevations and streams give rise to a variety of vegetation is rendered a

fitting place for the attentions of the Botanist. Some of our valleys running in a southerly direction, as Shibden-dale, others in a south-easterly direction as Wheatley and Luddenden have their parts somewhat equally exposed to the sun's rays which generally increase their fertility. In pointing out localities of plants and places most suitable for botanical research we do earnestly hope and particularly request that roots of scarce flowers and ferns will not be taken away or destroyed. The neighbourhood of Hebden-bridge with its rich woods and craggy slopes has long been a favourite resort for Botanists, the Mytholm-clough being one of its most productive places where in 1864 we noticed the following, some of which are not commonly met with :

Lesser Wintergreen,	Pyrola minor,	July,	Shady woods,
Stone Bramble,	Rubus Saxatilis,	July,	Stoney places,
Balsam,	Impatiens fulva,	August.	

This is an American plant now naturalized in many parts of England on the banks of streams.

Cow wheat, *Melampyrum Sylvaticum*, July, Bushy places in woods, White climbing Fumitory, *Corydalis claviculata*, July, do.

Wood Stitchwort, *Stellaria nemorum*, May, Wet places in woods.

The valley of Luddenden contains a few rarities including :

Ivy-leaved Toadflax, *Linaria Cymbalaria*, May.

"On old walls having been introduced into this country from Italy."

Money wort, *Lysimachia Nummularia*, June, Damp places, Navel wort, *Colydon Umbilicus*, June, Old wall at the top of the valley, Yellow Flag, *Iris Pseud-acorus*, June, Swampy places.

Moderately abundant on the left bank of the stream :

Butterfly Orchis, *Habenaria Bifolia*, June, Among deep grass, Tway-blade, *Listera Ovata*, May, do.

Passing over Mixenden towards Ogden may be found on the exposed and hilly pastures :

Yellow Pansy, *Viola lutea*, May, In many places, Frog Orchis, *Habenaria Viride*, June, Very local and difficult to find.

Ogden moors produce the

Wild Rosemary, *Andromeda polifolia*, May, Peat bogs.

The classical allusion embodied in the name of this plant by the celebrated Linnaeus has rendered it of striking interest. Andromeda as related by the ancient poets, was a maiden of great beauty chained to a rock by the sea and exposed to monsters and venomous serpents, Perseus

came to her aid, chased away her enemies and thus delivered her. This lovely little flower said "Linnæus is her vegetable prototype. Scarcely any painter could so happily imitate the beauty of a fine female complexion, still less could any artificial colour upon the face bear any comparison with this lovely blossom, I find it always fixed upon some turf-y hillock amid the swamps, and its roots bathed by their waters." "In these marshy and solitary places, toads and venomous reptiles abound, the summer comes like Perseus, and drying up the waters which inundate the plant, chase away all her aquatic enemies, then the flower which had before drooped, pensively raises her head displaying her beauties to the sun."

Cat's foot,	Antennaria Dioicum,	June,	Mountain heaths,
Ivy crowfoot,	Ranunculus hederacea.	May,	Shallow streams,
Sneezewort,	Achillea Ptarmica,	July,	Moist meadows,
Pennywort,	Hydrocotyle vulgaris,	May,	Creeping at the foot of damp rocks,
Furze,	Ulex Nanus,	August,	Heaths and moors.
Cowberry,	Vaccinium Vitis idœa	June,	do.
Spotted Hand Orchis,	Orchis Maculata,	May,	Damp woods & meadows,
Fragrant Orchis,	Gymnadenia Conopsea,	June,	Hilly pastures.

About a mile and a half below Ogden in the Wheatley valley is the station for

Mimulus,	Mimulus luteus,	June,
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Naturalized on the margins of streams and in boggy places. A native of America.

Water cress,	Nasturtium Officinalis,	July,	Introduced into the Wheatley valley from Luddenden,
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Yellow cress,	Nasturtium Sylvestre,	June,	Banks of rivers & streams,
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Burdock,	Arctium majus,		Waste places,
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Lily of the valley,	Convallaria majalis,	May,	Woods.
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This flower occurs on the border of the Woodside plantation near the railway-arch, and the station will in all probability be destroyed by the railway cutting, it is the rarest wild flower in the Ovenden valley of which we are aware.

Shibden-dale having received the greatest share of our attention over any other locality in the neighbourhood, we have endeavoured to make a list of its flowering plants, which (though far from being complete) we hope will be interesting to the Botanical and other readers of this periodical, with a view of at some future time rendering it as complete as possible,

believing that the plan of carefully working upon such localities separately is the most effectual way of perfecting our local and national Floras.

Shibden-dale opens out a little below Queensbury, and is divided from the town of Halifax on its western side by a long range of hills, including Ringby, Pule Hill, Claremount, and Beacon Hill. On the slopes of these hills are woods and plantations, which in summer are verdant with foliage of the mountain ash and the oak, and bright with flowers. In the open spaces and on the hill tops are some good samples of the old English Homestead, in one of which the celebrated Sir Thomas Brown author of "Urn burial," "Materia Medica" resided for a period. On this side of the dale is the Shibden "Spa" containing a spring of mineral water which is strongly impregnated with iron and sulphur. One of the most interesting buildings is Scout Hall with its numerous windows and ornamental doorway. It stands at the foot of a dark overhanging wood, whose beauties we regret to say are being rapidly buried by the refuse from a neighbouring quarry. We remember some years ago when the road (now completely buried) which led along the foot of this wood was the most pleasing entrance to Shibden-dale, passing by Lee House and under an avenue of trees, the place was redolent with the blossom of the wild Rose, and the Red Lychnis, and here might be enjoyed the cool shade of summer, or within a few steps the fall blaze of noon-day. Near the Hall stand two Sycamore trees (*Acer Pseudo-platanus*) the largest in the valley with immense spreading branches, and in front is still to be seen the decayed and hollow trunk of a Yew-tree (*Taxus baccata*.) The Yew is seldom seen in this neighbourhood except in close proximity to a large house, or in a churchyard where its dark evergreen foliage serves to be symbolical with the immortality of the remains there deposited. In the days of archery the Yew was used for making bows on account of its toughness, and the juice of the plant is said to have been used for the poisoning of arrows. It is a native of mountainous woods growing on the edges of limestone cliffs whose light-grey color gives a striking contrast to the foliage of the tree. It is very slow of growth and equally slow in decay, and is one of the longest lived trees of the forest.

Near Shibden Head is the Upper Shibden Hall commanding a prospect over one of the most beautiful dales in Yorkshire, whose vegetation starts up in response to the season of spring and summer, almost portraying the freshness and splendour of a tropical valley, and whose hills are covered with golden-colored blossoms sending forth their honey-like fragrance,

tempting the bees and insects which join in the melodious song of birds on a summer day. When Linnæus visited this country in 1736, what he said and wrote concerning the natural history of our island we cannot tell, but we have often read the story that when he beheld the large commons near London covered with yellow blossoms of the Gorse already alluded to, he fell upon his knees in a transport of joy for being allowed to see such a beautiful display of the flower that he had cultivated with so much care in his native land.

The hills on the east are of a bare and heathy character and contain fewer plants of any note than those on the west; but we have found Fever-few, *Chrysanthemum Parthenium*, July, which is not a common plant, it was growing near the Shepherd's cot which overlooks the Shibden fold where in former years the large flocks of sheep from which Shibden (Sheepsden) takes its name were called together.

Also in the valley which joins the main Dale at Dam Head is the Columbine, *Aquilegia vulgaris*, June, representing the white variety, this only occurs in one other place in the Parish, and is worthy of being considered a rarity.

(TO BE CONTINUED.)

J. W.

The Erlking's Daughter.

FROM THE GERMAN OF J. G. VON HERDER.

LORD Oluf rides late and far away,
To bid the guests for his wedding day.—

The fairies are dancing along the green glade,
And the Erlking's daughter, saluting him, said

“Welcome, Lord Oluf, what haste with thee?
Come join the dance, and dance with me.”

“I dare not dance, I may not stay,
The morrow brings my wedding day.”

“Listen Lord Oluf, come dance with me,
Two golden spurs I'll give to thee,

And a silken shirt, both fine and white,
My mother bleached it in clear moonlight.”

“I dare not dance, I may not stay,
The morrow brings my wedding day.”—

“Listen, Lord Oluf, come dance with me,
And a heap of gold I'll give to thee,”

“A heap of gold that take I not ill,
Yet dance I neither can nor will.”

“Lord Oluf, if thou wilt not dance with me,
The plague and sickness shall follow thee.”

Right to his heart she struck once and again,
Ne'er like to this had he felt such pain.

Then lifted him fainting, upon his steed,
“Now ride thee home to thy bride with speed.”

As soon he rode up to his castle gate,
His mother all trembling before it sate.

“O hearken, my son, and quickly me tell,
Why is thy cheek so wan and pale?”

“And pale and wan should it not be?
I've rode in the Erlking's cursed country.”

“O hearken, my son, my joy and my pride,
What shall I say to thy young bride?”

“Tell her I shall in the forest be found,
Hunting there, with my horse and hound.”

Next morning while yet it was hardly day,
There came the bride and the weddlers gay;

They poured out mead, they poured out wine;
“But where stays Lord Oluf, this bridegroom of mine?”

“Lord Oluf, he may in the forest be found,
Hunting there with his horse and hound.”

But the bride lifted up his mantle all red,
And there lay Lord Oluf, stiff, cold and dead.

The Weather of 1866.

January.—A mild, windy and wet month, with heavy fall of snow: westerly gales on 8th and 29th; rain on 26 days; snow on 7; hail on 4; lightning on 1; halos on 1; electricity abundant on 5; mean temperature $41\frac{1}{2}^{\circ}$; maximum 52° ; minimum 22° .

February.—A wet uncomfortable month; vegetation very forward; heavy thunderstorm at 6 p m. on the 4th; tempestuous from the 3rd to the 8th; rain fell on 19 days, hail on 6, snow on 10, and lightning was seen on three occasions and auroræ on two. Mean temperature $37\frac{1}{2}^{\circ}$; maximum 51° , minimum 26° .

March.—A cold dull month; a southerly gale on 24th; rain on 13 days, snow on 9, hail on 1; mean temperature 39° ; maximum 54° ; minimum 18° .

April.—The first half of the month was showery, the last finer and the wind was mostly in the E. Rain fell on 21 days, hail on 4, snow on 2. Mean temperature $46\frac{1}{4}$ maximum 66° ; minimum 31° .

May.—Cold and ungenial; high winds on 10th and 11th; rain on 9 days, hail on 2, snow on 3; mean temperature $50\frac{1}{2}^{\circ}$; maximum 68° ; minimum 31° .

June.—Cold during the early part of the month in many parts but the last week was very sultry and hot; rain fell on 20 days; thunder was heard five times and lightning was seen once; mean temperature $59\frac{1}{4}^{\circ}$; maximum 77° ; minimum 40° .

July.—The 3rd week was hottest. Rain fell on 15 days; thunder was heard twice; the 3rd and 9th were windy; mean temperature $58\frac{1}{2}^{\circ}$; maximum 82° ; minimum 42° .

August.—High wind on 4th and 7th; rain on 25 days; thunder heard thrice; mean temperature $57\frac{1}{4}^{\circ}$; maximum 69° ; minimum 42° .

September.—Rain fell on 27 days, hail on 2 and thunder and lightning occurred on 3 days. Mean temperature 54° ; maximum 63° ; minimum 40° .

October.—Rain fell on 12 days;—milder temperature $50\frac{1}{4}^{\circ}$; maximum 63° ; minimum 33° .

November.—Rain fell on 22 days, hail on 3, snow on 1. Mean temperature $43\frac{3}{4}^{\circ}$; maximum $55\frac{1}{2}^{\circ}$; minimum 26° .

December.—Rain fell on 21 days, snow on 4, hail on 2. Mean temperature $42\frac{1}{4}^{\circ}$; maximum 55° ; minimum 29° .

The Winds.*

	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
January	0	3	0	2	2	40	24	21
February	3	11	2	4	5	16	7	31
March	4	20	7	20	4	9	8	18
April.....	2	19	22	11	9	8	7	8
May	6	14	10	21	3	9	6	20
June.....	0	8	16	16	4	17	11	9
July	2	27	0	19	0	11	9	24
August	1	9	6	12	3	26	10	25
September.....	1	5	2	13	2	37	15	14
October.....	0	15	17	25	5	16	4	8
November.....	0	4	0	3	1	26	10	43
December	0	2	6	6	2	34	16	27

* From observations taken three times daily.

1866.	{	Westerly winds....	624	N 19.	E 88.	S 40.	W 127.
		Easterly , ,	379	NE 137.	SE. 152.	SW. 249.	NW. 248

Jan. Feb. March. April. May. June. July. Aug. Sep. Oct. Nov. Dec.

Mean barometer..	29.004	28.899	28.983	29.227	29.319	29.261	29.275	29.094	28.963	29.412	29.147	29.075
„ temperature	41 $\frac{1}{2}$ o	37 $\frac{1}{2}$ o	39o	46 $\frac{1}{2}$ o	50 $\frac{1}{2}$ o	59 $\frac{1}{2}$ o	58 $\frac{1}{2}$ o	57 $\frac{1}{2}$ o	54o	50 $\frac{1}{2}$ o	43 $\frac{3}{4}$ o	42 $\frac{1}{2}$ o
„ humidity....	88	87	91	84	79	87	86	93	93	93	85	92
„ Elasticity of air	218	195	200	234	244	375	360	374	334	298	225	235
„ force of wind ..	1.3	1.2	0.7	0.9	0.9	0.7	0.7	1.1	0.8	0.6	1.5	1.1
„ cloud	7.1	6	7.6	7.3	5.6	6.7	6.5	7.3	7.6	7.7	6.3	7.8

JOSEPH GLEDHILL, F.M.S.

King Cross, January 14th, 1867.

NOTICE.

OUR Poetical contributors must excuse us for omitting to give their effusions in extenso, for with the limited space at our disposal, such would not be possible. We purpose for the future to give a notice of such as we cannot find room for, and occasionally extract a few lines from them.

R. D., 28, VICTORIA-STREET, HALEY HILL.—Sends "Childhood" (a retrospect.) The thought contained in it is pretty but not original, the rhyme and measure show evidence of care and study, but the melody is far from being preserved, and we would suggest that the repetition of the four lines at the end of each verse be discontinued. We hope to hear again from R. D.

RICHARD TAYLOR (author of the "Factory child.")—Sends a poetical "Mule i'th' garden," but its great length (upwards of one hundred lines) compels us to decline it. It is exceedingly complimentary to the author of the Yorkshire tale bearing the same title, and here and there some humour is discernable. Its greatest fault is the too frequent repetition of the expression "Mule i'th' garden" which occurs not less than twenty-five times—the moral of the piece is no doubt the one which the author of the story intended. We quote a few lines to show the manner in which it is treated.—

"A mule i'th' garden shows us wedlock plain,
Driving him aght is courtship o'er again ;—
And oft theease changes in awr married life
Are blessings in disguise to man and wife.
Then be content what e'er your station be
A mule i'th' garden nah an' then to see
An' let it taich you if yo're man an' wife,
Courtship's the main spring of a married life.

WILLIAM HEATON has forwarded to us the copy of "Molly's Valentine," from "Green leaves and sprigs of Heather." It is in the Yorkshire dialect which is very well rendered. It was received too late for insertion in the February number, and its interest is therefore lost.

J. L. (Somersetshire.)—We should advise this contributor to cease to court the muse for judging from the sample received (Stanza on All Souls' Church) she has either entirely overlooked or forsaken him.

STARLIGHT," by J. H., is reserved for publication at some future time.

A Geological Ramble to Ingleborough.

CONTINUED FROM PAGE 106.

INGLETON is a very ancient place, and the houses have a quaint appearance; they are built of slate and limestone, and plastered over with mortar. In front of many of the better class of houses numbers of curious pieces of limestone are placed for ornament, great quantities of such pieces are obtained from the quarries about here. The streets are very narrow, and of every angle but a right angle. But they are remarkably clean, the limestone giving even the roads a bright appearance. The river Greta has worn itself a deep channel in the slate rocks, its bed being considerably below the level of the town. It is thickly strewn with huge boulders and pebbles, which tell an unmistakable story of the turbulent character of the floods which frequently prevail in this neighbourhood. The old church is a weather-worn structure; in form it is rectangular, with a square tower which is not much higher than the flattish roof of the church. The people seem to be quiet, steady, and industrious.

After breakfast we set out again for Ingleborough, for we did not like the idea of leaving without making another ascent, especially as it seemed likely to be a fine clear day. We went up the grass-covered road which leads to Crina Bottom. It is bounded by very high limestone walls which form a welcome shelter from the fierce rays of the morning sun. About half a mile, ere we reach Crina Bottom the sheep pastures are left behind, and the road leads through a heathy moor. From this place Ingleborough presents a most imposing aspect, terrace after terrace of limestone rock stretch away right up to the summit, while vast blocks cling to its steep sides. Crina Bottom lies in a hollow, just under a great Cliff. There is only one house, three or four green fields which were quite covered with cowslips, primroses, orchids, and other pretty wild flowers. The white cliffs are lined with young firs, whose bright green foliage forms a pleasing contrast to the bare rocks behind. Great blocks of limestone are scattered about the fields, and just behind the house immense masses are piled up in all sorts of fantastic ways, forming a natural rockery such as would shame the most elaborate construction of

the kind ever made by man. Altogether it is as charming a little spot as ever eyes rested upon.

“Full many a spot
Of hidden beauty have I chanced to espy
Among the mountains ; never one like this ;
So lonesome and so perfectly secure ;
Not melancholy—no, for it is green,
And bright and fertile, furnished in itself
With the few needful things that life requires.
—In rugged arms, how soft it seems to lie,
How tenderly protected ! far and near
We have an image of the earth,
The planet in its nakedness.”

If Crina Bottom had stood for her portrait to the poet, the likeness could scarcely have been more faithful. It is indeed “a sweet recess,” an oasis in a wilderness. Ingleborough protects it from the cold, north-east wind, and supplies it with moisture derived from the clouds.

The easiest way to ascend Ingleborough is by Crina Bottom, which is about half way between Ingleton and the summit of Ingleborough, the whole distance being about four miles. After leaving Crina Bottom we pass over a boggy moor, and here and there we meet with those curious circular holes from ten to twenty yards in diameter and some of them five or six deep, called “Swallow Holes.” The sides slope down like a basin and are covered with succulent herbage which appears to be much relished by the sheep. They seem to be the natural drainage of the moors. The water sinks through them into channels and caverns forming those beautiful subterranean waterfalls for which this district is famous. “Weathercote Cave” in Chapel-dale, and Clapham or the “Ingleborough Caves” in Clap-dale are annually visited by great numbers of people. Most of these Caverns are supposed to have been formed by the water percolating through the fissures of the lime-stone-rocks gradually dissolving and carrying them away. It was very warm, but as we had plenty of time we took it easily, and at length after many a halt we reached the top of the ridge. Before ascending the cone, we went a few yards down the other side, to the little spring which issues out of the hill side. We sat down by the clear stream and quenched our thirst with its icy cold water, which gave a delicious relish to some sandwiches, we had brought with us. We were very thirsty when coming up, and one of the most pleasing reminiscences of our visit to Ingleborough will be the recollection of that delightful repast by the little mountain

stream. We ascended the cone by the sheep-path, and walked all round it again. The air though not so hazy as the day before, still was not clear enough for us to discern Morecambe Bay. But we enjoyed some splendid views of the limestone fells around us including Whernside, Pennygant and Fountains Fell. It may be interesting to some of our readers to note the fact, that no less than five of our largest northern rivers take their rise within a few miles of Whernside, *viz*: the rivers Eden, Lune, Ribble, Wharfe and Ure. The river Eden, flowing northward through Cumberland, empties itself into Solway Frith. The rivers Lune and Ribble, flow westward to the Irish Sea, and the rivers Ure and Wharfe flow eastward to the Humber.

The wind blew in a steady breeze from the east, and we began to be rather chilly after being so hot in coming up, so after another walk round the hill, and fully satisfying ourselves with the grand scenery on the north and east sides we sat down under a ledge of rock, on the western edge just under the old "Man" or beacon, where, protected from the cold wind, we could admire at leisure, the beautiful panorama before us. Here we lay for hours, gazing in silent raptures upon the glorious scene which sky and earth presented. The south of Westmoreland and the north of Lancashire were spread out before us like a map. The country gradually slopes down to the west coast, in gentle undulations and it is very much diversified with dark moorlands, green pastures and forests. We had a fine view of the river Lune as it meandered through its serpentine path, glittering like a stream of mercury, on its way to the sea. "There is perhaps no more delightful stream than this. High mountains stand around its springs, rich woods and pastures accompany its seaward course, and a magnificent castle looks over the tide which enters its winding channel." As the day wore on, the prospect began to brighten up, and a thin silvery streak on the verge of the western horizon, which we had anxiously watched for hours, began gradually to grow more and more distinct, until at length we recognized with delight the well-known features of Morecambe Bay, and the Isle of Walney beyond it, and still further the Irish sea. The scene was magnificent beyond all description. The castellated clouds, the glassy sea, expanding wider and wider as the tide came in; the burnished moorlands, the lofty fells, with their broad belts of grey limestone and summits decked with crimson; and the marbled heavens, all contributed to the glory of that scene which will never be effaced from our memory while Ingleborough is remembered.

“And oh ! if there be an elysium on earth,
It is this, it is this.”

To gaze upon the broad face of Nature, from this craggy summit, far away from the busy haunts of men, especially when she has put on her most pleasing aspect, is a joy, infinitely beyond comparison with any of the pleasures of towns and cities. But we cannot reasonably hope to experience these delightful emotions without rendering faithful homage to Nature. When we enter her courts we must shake the dust of the factory and the workshop from us, and yield up our minds and bodies to the full enjoyment of her works. No hurried visit, accompanied by the cankering cares of business, will ever yield them. No, we must leave all such foes to enjoyment behind, for they only act as drags, and prevent us from getting the full benefit of our rambles. And above all we must never forget that

“In *our* life alone does Nature *live*,”
“We may not hope from *outward* forms to win
The passion and the life whose fountains are *within*.”

It was six o'clock ere we left the summit, and gladly could we have waited to see the sun disappear beyond the western sea, but Ingleborough is not the best of places for a stranger to descend after sunset and we wished to visit one or two other interesting places before nightfall. So, tearing ourselves away from this soul enchanting prospect and casting a parting glance at the limestone fells behind us, we reluctantly descended, well knowing that it would be a great chance for us ever to have so fine a view from it again. But ere finally losing sight of the sea we sat down on a limestone-ridge and enjoyed one more view ; and as a reminiscence of the spot we took a few fronds of the pretty little fern called by botanists *Asplenium trichomanes*, which grows so abundantly in the crevices of limestone-rocks. We then hastened down the moor, passed Crina Bottom and down the same green lane we came up in the morning, and reached our Inn at Ingleton soon after seven.

After tea we took a walk through the village and soon found ourselves wandering along the river bank. The Greta, a tributary of the Lune, is formed by the junction at Ingleton, of two streams, one coming down Chapel-dale which is famous for its caves; and the other down the deep and romantic glen of Kings-dale, in which is situated the pretty little waterfall called “Thornton Force.” Ingleton is peculiarly interesting to the geologist on account of its slate rocks and igneous dykes. One of these dykes may

be seen standing like a wall out of the water, on the right hand side going up. It is a reddish fine grained crystalline rock, very much like granite and totally different from the surrounding stratum, which is composed of a mass of broken up slate rocks.

We had not gone very far up the beck side before our progress was barred by a ledge of rock over which the water came, occupying the whole of the narrow space betwixt the overhanging cliffs. We were obliged to turn back and force our way through a dense underwood, where the trees were very close together, and their branches interwoven with one another so intricately as to hinder our progress very much. It is called "Creeping wood" and well does it deserve the name, for we could seldom stand upright and we had to creep on our hands and knees for a great part of the way. The ground was literally covered with wild flower and ferns, around the roots of the trees, and in every crevice of the rocks; in fact every place where plants could find space to live, was occupied by them. We recognized many old favourites and doubtless had our botanical friends been with us, some rareties would have rewarded their search, for the place seemed peculiarly favourable for them. By great exertion, and sundry rents of clothes and scratches, we reached an open space, from which a path led down into a deep chasm through which the beck runs. Curious to know where it led we followed the path hoping it might conduct us to the waterfall. When we got to the bottom we found ourselves in a deep and narrow glen, having on one side a perpendicular cliff of solid rock, and on the other a sloping cliff of a softer shale; plainly showing us, that we were in the line of a *fault*. At the upper end the water came tumbling down a narrow rocky gorge and at the lower end, we found the upper side of the ledge, which had barred our progress in coming up the beck side. Not being able to get down that way we turned back in order to re-ascend, but in the semi-darkness which prevailed in this deep glen, we experienced some difficulty in finding the path again. At length however, after forcing our way through a mass of tall ferns and brambles, we found it, and were soon on the top again. Fortunately the path got more distinct and fewer obstacles obtruded themselves. We emerged out of the gloomy wood (for it was now fast getting dark) into an open field in front of the object of our journey, "Thornton Force." We sat down on the trunk of a fallen tree while we examined the "Force." The water falls some thirty feet, and after heavy rains it is said to be a magnificent spectacle. But even then it was very impressive, especially

when taken in conjunction with the surrounding scenery. Whernside to the north and Ingleborough to the right reared their dark forms in the clear ether of heaven; the night wind softly sighed through the dark wood by which we were surrounded, and the soothing sound of falling water alone broke the awful silence around us.

Not thinking it wise, to attempt the same way back, we made our way through the wood into the open fields and took across the country in a line parallel to Ingleton, so as to come across any road or footpath leading to the village. We did not go far before we found one, which led us past Thornton Church. A pleasant walk through the fields brought us to Ingleton, and we reached our Inn by eleven o'clock well satisfied with our ramble to "Thornton Force."

Next morning we rose early and took a walk up Chapel-dale and returned by the lime-kiln, where we got a few fossils, from the old lime-burner. They were chiefly *Productus*, but not good specimens. However he promised to have some better specimens ready for us when we came again. We got back to the Inn soon after six, and packed our fossils while breakfast was preparing. After breakfast we bade good bye to our host and hostess and promised that when we came to Ingleton again we would take up our quarters at the Bay Horse Inn. A few minutes walk brought us to the station from which a good view of Ingleborough may be obtained. We left by the first down train which leaves Ingleton about 7.30. A little below Clapham, we had a fine view of Pennygant.

We arrived at Settle Station, a little after eight and a walk of about a mile, across Ribblesdale brought us to the village, which is situated at the foot of a lofty hill called "Settle Crags." The road to Malham leads up these Crags and for the first mile or two is very steep. From this place very extensive views of the beautiful country above Settle may be obtained. It is rather a novel sight to one accustomed to the dark and rounded forms of our Millstone-grit and coal strata hills, to see mile after mile of these grey crags, worn by the weather into all sorts of fantastic forms, as they are found all along the line of this Fault.

The road, all the way from Settle leads a little to the south of this Fault, and the naked grey crags contrast strongly with the dark heather-covered moorlands of grit on the other side. At the summit of this road we pass within a short distance of Ryeloa, a rounded hill composed of Millstone-grit, 1796 feet in height. The limestone fells to the north are 1800 feet in height. The natural position of this limestone is a

thousand feet below this grit rock of Ryeloa, it having been lifted to that extent by the Fault.

The view from Ryeloa is very extensive, embracing the upper portions of the valleys of the Aire and Ribble as far as Skipton on one side and Pendle Hill and Padiham heights on the other. To the north, Fountains Fell, Malham Tarn and the grey Crags behind are seen. From this place the foot path is very indistinct, in fact there is none over Malham moor, and in referring to our faithful guide the Ordnance Map, we found a blank space at this particular spot, indicating that there was no distinct path. But, with our compass and map we went straight across the moor, and without the least difficulty got into the road which led down by Malham Cove to Malham, where we had appointed to meet our friends (who had come up Wharfe valley, through Bolton Woods and Kilnsey, and over the moors,) in the evening.

J. S.

Stop at Hoom.

Some fowk wi' sanctimonious faces,
Talk abaght hearts, an' brains, an' graces,
An' purest motive, finest feelin',
As tho' dame nature in her dealin'
Had gein such things to nooan but them,
An quite o'erlook'd poor workin' men.
A tender heart an' horny hand
They dunnot seem to understand ;
Or 'at a factory lass can be
Full ov susceptibility.
But if they knew as mich as me,
(An' that's but little,) they'd agree
'An own 'at hearts as pure can dwell,
I' fowk 'at's rung to work bith bell,
As iver beat i' mortals breast,
E'en tho' that mortal spoarts a crest.
A sample o' this sooart o' thing
It's my intention nah to bring.
A factory lad an' factory lass,
I' shabby clooas, an' short o' brass,
Aw heeard one neet i' conversation
Abaght ther futer sitiuation.
He meant to try some distant shore
To multiply his scanty store,
An' thus shoo used her best endeavour
To change his mind, so's nut to leave her.

"Tha wodnt goa an' leave me, Jim,
All lonely by mysel ?
My een at 'th varry thowts grow dim,
Aw cannot say farewell.

Tha vow'd tha could n't live unless
Tha saw me ivery day,
An' said tha knew noa happiness
When aw wor forc'd away ;

An' th' tales tha tould I know full weel
Wor true as gospel then ;
What is it, lad, 'at ma's thi feel
Soa strange—unlike thisen ?

Ther's room enuff aw think tha'll find
I' th' taan whear tha woa born,
To make a livin if tha'll mind,
An ha' faith i' to-morn.

Aw've mony a time goan to mi wark
Throo claauds o' rain an' sleet,
Ali's seem'd soa dull, soa drear, an' dark,
It ommust mud be neet.

But then when braikfast time's come raand
 Aw've seen th' suns cheerin ray,
 An' th' heavy lukkin claads have slunk
 Like skulking lads away;

An' then bi nooin it's shone soa breet
 Aw've sownt some shade to rest,
 An as aw've paddled hooam at neet,
 Glorious its sunk i'th west.

An' tho a claad hangs ovver thee,
 (An' trouble's hard to bide,)
 Have patience lad, an' wait, an' see
 What's hid o'th tother side.

If aw wor free to please mi mind,
 Aw'st niver make this stir;
 But aw've a mother ommust blind,
 What mud become o' her?

Tha knows shoo cared for me when walk
 An' helpless every limb;
 Aw'm feard her poor old heart ud braik
 If aw'd to leave her, Jim.

Aw like to hear thi talk o' th' trees
 'At tower up to th' sky,
 An' th' burds 'at flutterin ith' breeze,
 Like glitterin jewels fly,

Woll th' music of a shepherd's reed,
 May gently float along,
 Lendin its tender notes to lead
 Some fair maid's simple song;

An' flaars 'at grow o' ivery side
 Such as we niver see;
 But here at hooam, at ivery stride,
 Ther's flaars for thee an' me;

Aw care not for ther suns soa breet,
 Nor warblin melody,
 Th' clink o' thy clogs o'th flags at neet,
 Saands sweeter, lad, to me.

An' tho' aw wear a gingham gaon,
 A claat is noa disgrace;
 Tha'll niver find a heart moor warm
 Beat under silk or lace.

Then settle daon, tak my advice,
 Give up this wish to roam,
 An' if tha luks tha'll find lots nice
 Worth stoppin for at 'hooam.”

“God bless thi, Jenny! dry that e'e,
 An' gi'e us howd thi hand,
 For words like those throo sich as thee,
 what mortal could withstand.

It is n't mich aw know o'th world.
 But truly can aw say,
 A faithful heart 's too rich a gem,
 To thowless fling away.

So here aw'll stop, and should fate fraan,
 Aw'll tew for thine and thee,
 An' seek for comfort when cast daan.
 I th' sunleet o' thi e'e.

“Another Babby.”

Another!—well my bonny lad
 Aw wod n't send thi back;
 Although we thought we had n't raam,
 Tha's fun some in a crack.

It maks me feel as pleased as punch
 To see thi pratty face,
 Ther's nut another child i'th' bunch
 Moor welcome to a place.

Awst ha' to fit a peark for thee,
 I' some nook o' mi cage;
 But if another comes, raylee!
 Awst want a bigger wage.

But awm noan feard tha'll ha' to want,
 We'll try to pool thi throo,
 For Him who has my laddie sent,
 He'll send his baggin too.

He hears the little sparrows chirp,
 An' answers th' ravens' call,
 He'll never see one want for owt,
 'At 's worth aboon 'em all.

But if one on us mun goa short,
 (Although it's hard to pine),
 Thy little belly shall be fill'd
 Whatever comes o' mine.

A chap con nobbut do his best,
 An, that aw'll do for thee,
 Leavin to providence all th' rest,
 An' we'st get help'd tha'll see.

An' if thy lot's as bright an' fair
 As aw could wish it, lad,
 Tha'll come in for a better share
 Nor iver blessed thi dad.

Aw think awst nut ha' lived for nowt,
 If, when deeth comes, aw find
 Aw leave some virtuous lasses,
 An' some honest lads behind.

An' tho' noa coat of arms may grace
 For me, a sculptor'd stooan,
 Aw hope to leave a noble race,
 Wi' arms o' flesh an' boaan.

Then cheer up, lad, tho' things luk black,
 Wi' health we'll persevere,
 An' try to find a brighter track—
 We'll conquer niver fear!

An' may God shield thee wi' his wlng
 Along life's stormy way,
 An' keep thi heart as free throo sin,
 As what it is to-day.

J. H.

Scientific Gossip.

Novel use of the Diamond—A diamond machine for perforating rocks is actually at work boring a tunnel on the Bourbonnais railway in France. The common black diamond of Borneo is used. The diamonds are inserted in a steel ring fixed at the end of an iron tube, and the whole apparatus is then made to rotate. The hollow of the tube receives the nucleus cut out of the rock. It is said to progress at the rate of a metre per hour.

To detect Wood Fibre in Paper.—Add nitric acid and gently warm. A brown stain will be quickly produced. Sulphate of aniline has also been recommended.

Artificial formation of 'Cells.'—Dr. Montgomery, in a paper read before the Royal Society, shows that every variety of 'cell' with which the physiologist is acquainted, may be produced artificially in the substance called myeline. A typical cell with nucleus and nucleolus and so-called cell-wall was always present in his experiments. Even discs resembling blood-corpuscles were formed. The author concludes that his experiments overturn all physiological theories founded on the assumption of the existence of 'vital forces.'

Bleaching.—Bolley recommends the hypochlorite of magnesia for this purpose, as possessing many advantages over the ordinary bleaching powder. This much is certain, that it is not so injurious to the tissues exposed to its action as the chloride of lime.

A writer in a foreign journal recommends a small quantity of turpentine added to the water in which linen articles are being washed, for the purpose of whitening them.

Magnetic-Electric Machines.—Since the invention of Wilde's machine in which a weak current produced by the revolution of the armature of a permanent magnet was made to produce an astonishingly intense current by traversing the coils of a large electro-magnet—several contrivances have been attempted with the view of dispensing altogether with the permanent magnet. The most notable of these are the machines of Wheatstone and Siemens, papers on which were read before the Royal Society, on February 14th. Both machines resemble each other in principle and construction. The current from a voltaic battery is sent through the coils of an electro-magnet; the connection with the battery is now cut off; and the residual electricity in the electro-magnet may be augmented by the revolution of the armature to such a degree that water may be decomposed, and lengths of platinum-wire fused by it. These machines however do not promise to become of much practical use.

Oxidation by Charcoal.—At a meeting of the Chemical Society on the 7th inst., Dr. Calvert, of Manchester, described some interesting experiments in which charcoal impregnated with Oxygen was made to act upon various compounds. Some of the results were, the immediate conversion of alcohol into acetic acid, the oxidation of sulphurous and hydro-sulphuric acids into sulphuric acid, and the transformation of wood spirit into formic acid.

Artificial Meerschaum Bone, &c.—It is stated that at the Paris Exhibitions, there were to be shown specimens of meerschaum, horn, coral, veneering, &c., prepared from potatoes, turnips, and carrots, by treating them with sulphuric acid, caustic soda, and several other re-agents. These are certainly novel applications. Fancy a knife handle made out of a carrot, a snuff-box from a turnip, and a pipe from a potato.

Capture---Wheat-ear.

ON Saturday, March 23rd, a specimen of the Wheat-ear (*Sylvia Ænanthe*), was shot by Mr. Thomas Foulds at Park Field, Mount Tabor. This is an early instance of the Wheat-ear being met with in the neighbourhood, considering the very severe weather we have experienced.

Botany.

(CONTINUED FROM PAGE 100.)

SHIBDEN DALE is well watered by streams which issue from the high lands situated at its head, and by numerous small rills which are fed by the oozing of water from the sides of the hills that enclose the valley. A junction of two streams is formed at Colder's pit, and the beck is again joined at Damhead by a stream flowing through the valley which lies behind-Bare head hill. After this it is continuous through the dale, being occasionally interrupted for mill purposes. A great portion of the beck is termed Redbeck from the colour of the iron deposit appearing on its bed.

The following list of plants is drawn up entirely from personal observation, and contains the common name, the scientific name, the month of flowering, and the locality of each plant. Besides the plants to be found in Shibden, many which grow in the adjacent districts are included, thus rendering the list more comprehensive than was at first intended.

Botanists are invited to communicate important additions and noteworthy corrections.

Ranunculaceæ.

1. Wind Flower	<i>Anemone nemorosa</i>	March.
Woods and fields abundant in Shibden.		
2. Ivy-leaved Crowfoot	<i>Ranunculus hederaceous.</i>	June.
In a stream at Shibden head, and plentiful in shallow streams at Ogden.		
3. Lesser Spearwort	<i>R. Flammula.</i>	June.
Watery places at Upper Shibden and Ogden.		
4. Pilewort.	<i>R. Ficaria.</i>	April.
Woods and fields abundant in Shibden.		
5. Goldilocks.	<i>R. auricomus.</i>	April.
Woods and Thickets, common, Shibden.		
6. Upright crowfoot.	<i>R. acris.</i>	June.
Meadows and pastures, common, Shibden.		
7. Creeping crowfoot.	<i>R. repens.</i>	May.

Meadows and pastures, common, Shibden.

8. Bulbous crowfoot. *R. bulbosus.* May.

Meadows and pastures, common, Shibden.

9. Marsh marigold. *Caltha palustris.* March.

Marshy places at Dam-head and Salterlee, Shibden.

10. Columbine. *Aquilegia vulgaris.* May.

In a hollow place on the left of the stream near the Paddock, Shibden, and near Coley Church.

Papaveraceæ.

11. Common Red Poppy. *Papaver Rhœas.* June.

Corn fields, common, Shibden.

12. White Opium Poppy. *P. somniferum.* July, 1865.

A solitary specimen in an old quarry on the bottom of Elland wood.

Fumariaceæ.

13. Common Fumitory. *Fumaria officinalis.* May.

Near Whitehall-bar, Hipperholme.

Cruciferæ.

14. Hairy Bitter-Cress. *Cardamine hirsuta.* April.

Common in very damp places, Shibden.

15. Lady's Smock, *C. Pratensis.* April.

Damp fields, very fine, opposite Shibden Mill Inn.

16. Hedge Mustard. *Sisymbrium officinale.* June.

Road-sides at Salterhebble and North Dean.

17. Charlock. *Sinapis arvensis.* June.

Corn-fields near Scout wood, Shibden.

18. Shepherd's purse. *Capsella Bursa-pastoris.* March.

Road-sides, and waste places, common, Shibden.

19. Jointed Charlock. *Raphanus Raphanistrum.* June.
Wild Radish. *R. sativus.*

Corn-fields near Scout wood, Shibden.

Violaceæ.

20. Dog Violet. *Viola canina.* April.

Hedge banks near Limed House, Shibden.

21. Mountain Pansy. *V. lutea.* June.

Swales moor, Shibden, and plentiful in the fields at Ogden.

22. Heartsease. *V. tricolor.* May.

Corn-fields near Scout wood, Shibden.

Droseraceæ.

23. Round-leaved Sundew. *Drosera rotundifolia.* July.
Boggy places on Norland Moor.

Polygalaceæ.

24. Milkwort. *Polygala vulgaris.* June.
Dry pastures at Upper Shibden.

Caryophyllaceæ.

25. Bladder Campion. *Silene inflata.* June.
Field borders at Upper Shibden.

26. Ragged Robin. *Lychnis Flos-cuculi.* May.
Meadows and pastures, Shibden.

27. White Campion. *L. vespertina.* May.
In a corn-field at the top of Burnt brow, Shibden.

28. Red Campion. *L. diurna.* May.
Woods on the banks of the Red Beck, Shibden.

29. Corn Cockle. *L. Githago.* June.
Corn-fields at Upper Shibden.

30. Pearlwort. *Sagina procumbens.* May.
Old walls, wet rocks, and waste ground, Shibden.

31. Purple Sandwort. *Arenaria rubra.* June.
Near Scout Hall, Shibden, and on the road-side between Salter-hebble and Copley.

32. Wood Stitchwort. *Stellaria nemorum.* May.
Shady place in Sim-carr wood near the the bottom of Lee lane, Shibden.

33. Common Chickweed. *Stellaria media.* March.
Waste places and cultivated ground, Shibden.

34. Greater stitchwort. *Stellaria Holostea.* April.
Hedge-banks, and woods, abundant, Shibden.

35. Lesser stitchwort. *Stellaria graminea.* May.
Woods in Upper Shibden.

36. Mouse-ear. *Cerastium glomeratum.* April.
Dry fields and banks, Shibden.

Tiliaceæ.

37. Lime-tree. *Tilia europæa.* July.
In a field corner near Pye Nest, on the road to Sowerby Bridge.

Hypericaceæ.

38. Square-stemmed St. John's wort. *Hypericum Quadrangulum.* July.
 Edge of Elland wood on the brink of the Canal.

39. Dotted-leaved St. John's wort. *Hypericum Perforatum.* July.
 Scout wood, Shibden, Railway banks, and old quarries at the bottom of Elland wood.

Aceraceæ.

40. Common Maple. *Acer campestre.* May.
 Hedges in Lee-lane and Upper Shibden.

41. Sycamore. *A. psuedo-platanus.* May.
 Frequent in woods and plantations, Shibden.

Geraniaceæ.

42. Dove's-foot. *Geranium dissectum.* June.
 Clover fields, upper Shibden, plentiful near Salterhebble.

43. Herb Robert. *G. Robertianum.* May.
 Woods and hedge banks, Shibden.

Linaceæ.

44. Common Flax. *Linum Usitatissimum.* July, 1865.
 In the road leading to the quarries at Scout wood, Shibden, very sparingly.

45. Purging Flax. *L. Catharticum.* June.
 Hilly pastures opposite the Paddock, Shibden.

Oxalidaceæ.

46. Wood-Sorrel. *Oxalis acetosella.* May.
 Howcans wood, Shibden, abundant.

Leguminoseæ.

47. Furze. *Ulex europæus.* June.
 Hilly slopes at upper Shibden, affording a pleasing feature in the landscape.

48. Dwarf Furze. *U. nanus.* August.
 Moors above Ogden Reservoir.

49. Broom. *Sarothamus scoparius.* May.
 Upper Shibden, and at Salterlee.

50. Purple Clover. *Trifolium. pratense.* May.
 Pastures and cultivated fields.

51. Dutch or White Clover. *T. Repens.* May.
 Meadows and pastures, Shibden.

52. Procumbent Yellow Clover.	<i>T. procumbens.</i>	June.
	Near Limed House, Shibden.	
53. Common Bush Vetch.	<i>Vicia sepium.</i>	June.
	In the corner of a corn-field, near Heath Terrace, Skircoat.	
54. Tufted Vetch.	<i>V. Cracca.</i>	June.
	Top of Burnt-brow, upper Shibden.	
55. Common Vetch.	<i>V. Sativa.</i>	May.
	Below the Brewery, Shibden-head.	
56. Meadow Vetchling.	<i>Lathyrus pratensis.</i>	July.
	Moist meadows and pastures, Shibden.	
57. Meadow Pea.	<i>L. Macrorrhizus.</i>	June.
	Dry hilly pastures, Shibden.	

Rosaceæ.

58. Bird Cherry.	<i>Prunus Padus.</i>	May.
	Elland wood.	
59. Meadow Sweet.	<i>Spirea Ulmaria.</i>	June.
	Banks of Red-beck, Shibden.	
60. Great Burnet.	<i>Sanguisorba officinalis.</i>	June.
	Damp meadows, top of Burnt brow, Shibden.	
61. Common Lady's mantle.	<i>Alchemilla vulgaris.</i>	June.
	Meadows and hilly pastures, Shibden.	
62. Silver Weed.	<i>Potentilla anserina.</i>	June.
	Road-sides and waste places, Shibden.	
63. Spring Cinque-foil	<i>P. verna.</i>	April.
	Plentiful near Hipperholme.	
64. Creeping Cinque-foil.	<i>P. Reptans.</i>	June.
	Road-sides and banks, Shibden.	
65. Common Cinque-foil.	<i>P. Tormentilla.</i>	June.
	Dry hilly pastures, Shibden.	
66. Barren Strawberry.	<i>P. Fragariastrum.</i>	April.
	Woods and hedge-banks, Shibden.	
67. Wood Strawberry.	<i>Fragaria vesca.</i>	May.
	Woods and thickets, Shibden.	
68. Raspberry.	<i>Rubus Idæas.</i>	June.
	Woods on the banks of the Red-beck, Shibden.	
69. Blackberry.	<i>R. Fructicosus.</i>	June.
	Woods and hedges, Shibden.	

70. Wood Avens.	Geum urbanum.	June.
Upper Shibden, and on the right bank of the stream in Sim-carr wood.		
71. Water Avens.	G. rivale.	June.
On the left bank of the stream in Sim-carr wood, Shibden.		
72. Dog Rose.	Rosa canina.	June.
Hedges and thickets, Shibden.		
73. Trailing Dog-rose.	R. arvensis.	June.
Hedges and thickets, Shibden.		
74. Hawthorn.	Crataegus Oxyacantha.	May.
Abundant in Hedges and thickets, Shibden.		
75. Crab-tree.	Pyrus Malus.	May.
Elland Wood.		
76. Mountain Ash.	P. aucuparia.	May.
Woods, frequent Shibden.		
77. White Beam-tree.	P. Aria.	May.
Woods in Shibden.		
<i>Onagraceæ.</i>		
78. Rose Bay.	Epilobium angustifolium.	July.
French Willow.	Banks of the canal near Salterhebble.	July.
79. Great Willow Herb.		
Codlings and Cream.	Banks of the Canal near Copley.	July.
80. Broad smooth-leaved Willow-herb.		
Dry hedgebanks and waste places.		
81. Enchanter's Nightshade.	Ciræa lutetiana.	June.
Woods in upper Shibden.		

(TO BE CONTINUED.)

NOTICES TO CONTRIBUTORS.

J. L.—“Ramble in Somersetshire” declined with thanks.

R. D., VICTORIA STREET, HALEY HILL.—“The Pauper’s Death” reserved for publication next month.

WILLIAM HEATON.—“The Voice of Spring.” Want of space compells us to reserve this for the next month’s issue.

LEAH, BOOTH TOWN,—“Stars,” may be looked for in the next number.

X. X. X.—“Ode to Temperance” not quite up to the mark—the signature is a peculiar one for the subject.

A TAILOR.—Should endeavour to produce something of a newer cut. “A Working Man’s opinion of the Reform Bill” is not admissible.

Botany.

(CONTINUED FROM PAGE 126)

Cucurbitaceæ.

82. Black Bryony. *Tamus communis.* May.
Hedges in upper Shibden.

Paronychiaceæ.

83. Corn Spurrey. *Spergula arvensis.* June.
Corn-fields and waste places, Shibden.

Saxifragaceæ.

84. London Pride. *Saxifraga umbrosa.* June.
On a hilly part of the Howcans wood, Shibden. (It is probable this plant has been brought here among rubbish from some neighbouring garden.)

85. Opposite-leaved Golden-saxifrage. *Chrysosplenium oppositifolium.* April.
Damp rocks and edges of streams in Scout wood and upper Shibden.

Umbelliferæ.

86. Wood Sanicle. *Sanicula europaea.* June.
Woods on the banks of the stream above Colder's pit, Shibden.

87. Pig-nut. *Bunium flexuosum.* May.
Sandy and gravelly pastures, Shibden.

88. Fool's Parsley. *Æthusa Cynapium.* July.
Swales moor, Shibden, and waste places near Skircoat.

89. Hog-weed. *Heracleum Sphondylium.* July.
Banks of the stream near the Paddock, Shibden.

90. Chervil. *Anthriscus vulgaris.* May.
Meadows and waste places, Shibden.

Araliaceæ.

91. Ivy. *Hedera Helix.* October.
Trunks of old trees and old walls, Shibden.

Caprifoliaceæ.

92. Common Elder. *Sambucus nigra.* July.
Hedges near Scout hall, Shibden.

93. Honeysuckle. *Lonicera Periclymenum.* June.
Thickets, and hedges in Scout wood, Shibden.

Rubiaceæ.

94. Woodruff. *Asperula odorata.* May.
Plentiful on the banks of the Red beck, Shibden.

95. Crosswort. *Galium cruciatum.* May.
Fields near the Water Scout, Shibden.

96. Goosegrass. *G. Aparine.* June.
Straggling amongst bushes, Shibden.

97. Smooth Heath Bed-straw. *G. Saxatile.* July.
Dry heathy places, Shibden.

Valerianaceæ.

98. Great Wild Valerian. *Valeriana officinalis.* June.
Abundant on the margins of streams in Shibden.

Dipsaceæ.

99. Field Scabious. *Knautia arvensis.* July.
Fields and old quarries, Shibden and Hipperholme.

100. Devil's bit. *Scabiosa succisa.* July.
Meadows and pastures, Upper Shibden.

Compositæ.

101. Butterbur. *Petasites vulgaris.* April.
Swamps and damp shady woods, Shibden.

102. Coltsfoot. *Tussilago Farfara.* March.
Pule Hill and near the upper water wheel, Shibden.

103. Golden Rod. *Solidago Virgaurea.* July.
Below the Water Scout, upper Shibden.

104. Nodding Bur-marigold. *Bidens cernua.* August.
Banks of the Canal near Washer lane.

105. Sneezewort. *Achillea Ptarmica.* July.
In a field at Peat pits, near Illingworth.

106. Yarrow. *A. Millefolium.* June.
Pastures and waste ground, Shibden.

107. Fetid Chamomile. *A. Cotula.* July.
In a corn-field near Shroggs, Ovenden.

108. Feverfew. *Matricaria Parthenium.* July.
Near Shibden fold, and on both sides of the Canal, Salterhebble.

109. Scentless Feverfew. *M. inodora.* July.

Corn-fields in Shibden, and very common on the Railway banks.

110. Ox-eye. Daisy. *Chrysanthemum Leucanthemum.* July.
Meadows and pastures, Shibden

111. Corn Marigold. *C. Segetum* June.
In a corn-field near Hipperholme, not common.

112. Cat's-foot. *Antennaria dioica.* June.
Heathy places at Ogden.

113. Groundsel. *Senecio vulgaris.* June.
Waste and cultivated ground, common.

114. Ragwort. *S. Jacobaea.* July.
Pastures and waste ground, Shibden.

115 Water Ragwort. *S. aquaticus.* July.
Marshy places, upper Shibden.

116. Burdock. *Arctium majus.* August.
Wheatley valley; near Godley bridge; fields near Cromwell wood, in Southowram.

117. Knapweed. *Centaurea nigra.* June.
Meadows and pastures, Shibden.

118. Corn Bluebottle. *C. Cyanus.* June.
Upper Shibden; near Ladyship in Old lane.

119. Welted Thistle. *Carduus crispus.* June.
Meadows and pastures, Ogden.

120. Spear Thistle. *C. lanceolatus.* July.
In the Ogden cloughs.

121. Creeping Thistle. *C. arvensis.* July.
Meadows near the Peat Pits, Ogden.

122. Marsh Thistle. *C. palustris.* July.
Wet places in the Ogden cloughs.

123. Nipplewort. *Lapsana communis.* July.
Woods in Shibden, common.

124. Autumnal Hawkbit. *Apargia autumnalis.* August.
Meadows and pastures, Shibden.

125. Dandelion. *Leontodon Taraxacum.* May.
Waste and cultivated grounds, common.

126. Sow Thistle. *Sonchus oleraceus.* June.
Fields and waste ground, Shibden, Old lane.

127. Hawks-beard. *Crepis virens.* June.
Woods in Shibden, common.

128. Hawkweed, Hieracium. Pilosella. May.
Dry banks, Shibden and Ogden.
Campanulaceæ.

129. Sheep's Scabions. Jasione montana. July.
Dry banks in Scout wood, and plentiful on the Railway banks.

130. Giant Bell-flower. Campanula latifolia. July.
Above the bridge in Sim-carr wood, Shibden.
Hedge-banks near Cromwell wood, Southowram.

131 Hairbell. C. rotundifolia. July.
Hedge-banks and dry hilly places in Shibden, common.
Ericaceæ.

132. Wild Rosemary Andromeda polifolia. June.
Peat bogs at Ogden.

133. Ling. Calluna vulgaris. June.
Heathy places at upper Shibden. Plentiful on the moors around
Halifax.

134. Cross-leaved Heath. Erica Tetralix. July.
Shibden, Ogden and Norland moors, common.

145. Fine-leaved Heath. E. cinerea. July.
Dry heaths, Shibden.

136. Bilberry. Vaccinium Myrtillus. May.
Shibden, Shroggs wood, Ovenden, Ogden, common.

137. Cowberry. V. Vitis-idœa. June.
Ogden moors.

138. Winter-green. Pyrola minor. July.
North Dean wood, not common.
Aquifoliaceæ.

139. Holly. Ilex aquifolium. June.
Hedges in Shibden common.
Oleaceæ.

140 Privet. Ligustrum vulgare. June.
Canal banks, planted for garden fences, but not indigenous.

141. Ash. Fraxinus excelsior. April.
Woods and hedges in Shibden.
Apocynaceæ.

142. Lesser Periwinkle. Vinca minor. May.
In the wood near the old Spa House, Shibden, having escaped
from the garden.

Polemoniaceæ.

143. Jacob's Ladder. *Polemonium cœruleum.* July.
A bushy hilly place at upper Shibden, very rare.

Convolvulaceæ

144. Small Bindweed. *Convolvulus arvensis.* June.
In a corn-field at Hipperholme.

145. Great Bindweed. *C. Sepium.* July.
Salterhebble, very plentiful.

Boraginaceæ.

146. Hound's tongue. *Cynoglossum montanum.* June.
In a lane leading to Cromwell wood in Southowram.

147. Forget-me-not. *Myosotis palustris.* June.
Streams at upper Shibden, and at Ogden.

148. Wood Forget-me-not. *M. sylvatica.* June.
Sim-carr wood, Shibden, common.

Scrophulariaceæ.

149 Foxglove. *Digitalis purpurea.* June.
Hedge-banks and woods, Shibden.

150. Ivy-leaved Toadflax. *Linaria Cymbalaria.* June.
On an old wall near Shaw hill, Halifax.

151. Yellow Toadflax. *L. vulgaris.* June.
Railway banks, common.

152. Knotted Figwort. *Serophularia nodosa.* June.
Shibden and Wheatley.

153. Mimulus. *Mimulus luteus.* June.
On the banks of a stream in Wheatley.

154. Lousewort. *Pedicularis palustris.* May.
Marshy and boggy places, Ogden.

155. Red Rattle. *P. Sylvatica.* June.
Heathy and hilly pastures, Shibden and Ogden.

156. Yellow Rattle. *Rhinanthus Christa-galli.* June.
Meadows and pastures, Shibden.

157. Common Eye-bright. *Euphrasia officinalis.* June.
Pastures and heaths, Shibden, Copley, Ogden.

158. Brooklime. *Veronica Beccabunga.* June.
Ditches and streams, upper Shibden.

159. Germaner Speedwell.	<i>V. Chamœdrys.</i>	May.
	Hedge-banks in Shibden.	
160. Common Speedwell.	<i>V. officinalis.</i>	June.
	Wall tops and dry meadows, Shibden.	
161. Thyme-leaved Veronica.	<i>V. serpyllifolia.</i>	June.
	In a corn-field near Salterhebble.	
162. Corn Mint.	<i>M. arvensis.</i>	July.
	In a corn-field at Salterhebble.	
163. Horse Mint.	<i>Mentha sylvestris.</i>	August.
	Banks of the stream below Hazlehurst wood, Shibden.	

Labiateæ.

164. Gipsy-wort.	<i>Lycopus europæus.</i>	July.
	Banks of the canal, near Salterhebble.	
165. Self-heal.	<i>Prunella vulgaris.</i>	July.
	Damp meadows and pastures, Shibden.	
166. Ground Ivy.	<i>Nepeta Glechoma.</i>	April.
	Hilly pastures near the Paddock, Shibden.	
	At the bottom of Cromwell wood, Southowram.	Near Hipperholme.
167. Red Dead Nettle.	<i>Lamium purpureum.</i>	May.
	Waste and cultivated ground, Shibden.	
168. Archangel.	<i>L. Galeobdolon.</i>	May.
	North Dean wood, very plentiful.	
169. Red Hemp Nettle.	<i>Galeopsis Ladanum.</i>	August.
	Woods and cultivated ground, Shibden.	
170. Common Hemp Nettle.	<i>G. Tetrahit.</i>	July.
	Cultivated ground, Shibden.	
171. Betony.	<i>Stachys Betonica.</i>	July.
	Hilly pastures and thickets, upper Shibden.	
172. Hedge Woundwort.	<i>S. syvaltica.</i>	July.
	Woods and thickets, common in Shibden.	
173. Marsh Woundwort.	<i>S. palustris.</i>	July.
	Banks of the canal, near Salterhebble.	
174. Wood Sage.	<i>Teucrium Scorodonia.</i>	July.
	Woods and thickets, Shibden.	
175. Common Bugle.	<i>Ajuga reptans.</i>	May.
	Meadows and pastures, Shibden.	

Primulaceæ.

176. Primrose. *Primula vulgaris.* May.
 Banks of streams and borders of woods, Shibden.

177. Cowslip. *P. veris.* May.
 In a meadow at upper Shibden, not common.

178. Loose-strife. *Lysimachia memorum.* June.
 Woods and damp shady places, Shibden.

Plantaginaceæ.

179. Ribwort. *Plantago lanceolata.* June.
 Meadows, pastures and sandy places in Shibden.

180. Way-bread. *P. major.* June.
 Meadows, pastures and waste places, Shibden.

Chenopodiaceæ.

181. Fat Hen. *Chenopodium album.* July,
 Waste places and near old buildings, Dam Head in Shibden.
 Wheatley and Ogden.

Polygonaceæ.

182. Bloody-veined Dock. *Rumex sanguineus.* June.
 Woods, roadsides and waste places, Shibden.

183. Curled Dock. *R. Crispus.* June.
 Roadsides and fields, Shibden.

184. Common Sorrel. *R. acetosa.* June.
 Meadows and pastures in Shibden, common.

185. Sheep's Sorrel. *R. acetosella,* June.
 Dry, gravelly and sterile land, Shibden.

186. Snakeweed. *Polygonum Bistorta.* June.
 Moist meadows in Shibden, abundant.

187. Spotted Persicaria. *P. Persicaria.* June.
 Waste places in Shibden, common.

188. Common Knot-grass. *P. aviculare.* May.
 Dry waste places, common in Shibden.

189. Black Bindweed. *P. convolvulus.* July.
 Cultivated and waste places, Shibden.

Empetraceæ.

190. Crowberry. *Empetrum. nigrum.* April.
 Above High green wood, on the banks of the river Hebden.

Euphorbiaceæ.

191. Mercury. *Mercurialis perennis.* April.
 Plentiful in woods and thickets, Shibden.
Urticaceæ.

192. Common Nettle. *Urtica dioica.* June.
 Waysides, hedgebanks and field borders, Shibden.

193. Hop. *Humulus Lupulus.* July.
 Near Scout hall in Shibden, near Cromwell wood in Southowram.

Ulmaceæ

194. Common Elm. *Ulmus Suberosa.* March.
Woods in Shibden, common.

(TO BE CONTINUED.)

J.W.

To May.

Hail! bounteous May, thy vernal
bloom,
Upheaving from its wintry tomb;
O'erspreads the bleak and glowing
plain,
With gorgeous hues of life again.

Hail ! virgin season blythe and gay,
With joy we greet thy opening day;
And join the anthem of thy praise
Which nature's various voices raise.

Nature resumes her wonted pride,
And decks the glen and mountain
side
With verdant beauty, fragrant flowers,
And shady amaranthine bowers.

The lovely rivulet that flows,
'Neath where the weeping willow
grows;
The craggy nook, the mossy cell,
Harmonious with thy praises swell.

The balmy breeze thy advent sings,
And through the vale the echo rings;
While sounds mellifluous fill the air,
From merry songsters warbling there.

All natures' vocal with a psalm,
Midst solitude and holy calm,
Its thrilling notes seraphic rise
With fervent zeal, and pierce the skies.

J. NICHOLLS

Entertainment Sixty Years Ago.

Mr. Editor, Sir,

As Entertainments are now all the rage, the following programme of one which took place in the Assembly Rooms, back of Talbot Inn, Halifax, upwards of 60 years since, might be interesting to some of your musical readers.

E. H.

From the Halifax Journal of July 10th, 1802.

(PUBLISHED WEEKLY BY HOLDEN AND DOWSON.)

MR. INCLEDON,

Of the Theatre Royal, Covent Garden,
Respectfully informs the Ladies and Gentlemen of Halifax,

That he intends

On MONDAY the 12th Instant,
In the New Assembly Room, Talbot,
(For one Night only,)

To have the honor of presenting them with a Serio Comic,
Vocal, Rhetorical and Musical Entertainment never before exhibited, called

VARIETY or SOMETHING NEW,

Written expressly for the occasion by Mr. T. Dibden, author of the

“Jew and Doctor.” “The Cabinet.” &c., &c.,

The Songs with only three exceptions entirely new, and composed for

Mr. Incledon by the following eminent masters,-Shield, Davy, Reeve,

Carter and Mazzinghi,

The entertainment will be divided into

Three Parts,

THE RECITATION, comprising Local Comic Strictures on Law Physic,
Matrimony, Conviviality, Apparitions, War, Peace, Fashion, Eccentricity,
&c., Introductive of Songs in the following succession.

PART I.

INTRODUCTION.

SONG. Variety.....

Something New or Musical Memoirs.

SONG.....	The Thorn
	The Masquerade or Quizzical Characters.
SONG.....	Darling Sue
	Conviviality or a Lecture upon Hands.
SONG.....	The Fairy Roof, O Gaiety.....
	Naval Eccentricities, or Ben Block at a Puppet show.
SONG.....	Black Ey'd Susan.....

PART - II.

Grog in the Ward Room or Tars at Anchor.

SONG.....The Post Captain.....
The Stuttering Cabin Boy and the Jew beginning the World again.

SONG..... The Charming Kitty.
Killegrew Killrudderry, or how to Fight a Duel

SONG..... The Irish Fantasmagoria
Monopoly or the Baker's Parrot,

SONG..... The Captive to his Bird
Change or Weather of the Rising Tempest.

SONG.....G. A. Steven's celebrated discription of a

STORM.

PART III.

	Heads and Tails, or how to write a Comedy.
SONG.....	The Sea Fight.....
	Ghosts and Spirits, or Modern Novels.
SONG.....	A time for everything
	Country Theatricals or how to make a blunder.
SONG	
	Taking Titles, or a Catalogue of Plays.
SONG.....	The Sailors Glory
	Chronological Coincidences, or a period to War.
SONG.....	The welcome days of Peace.....
	Thank ye for all favours.

FINALE

The whole of the Entertainment to be recited and sung by Mr. Incledon.
Accompanied on the Piano-forte by

MR. DAVY,

The Doors to be opened at Six, and begin exactly at Seven o'Clock.

* * * Admittance,—Front Seats, 3s; Back Seats, 2s.

Tickets to be had of Mr. Jenkinson, Talbot Inn, and Mr. Holden, Bookseller, Halifax.

“The paper of the following week July 17th, 1802, gives this report of the Entertainment.

MR. INCLEDON, on Monday, more than justified the expectations which had been raised of his vocal powers, though the Assembly room, full of company is by no means calculated for the purpose. He was well attended and received abundant applause. We understand he cleared Forty Pounds.”

Charles Incledon.

THIS admirable singer, who retired from the stage in 1815 and died in 1827, could never restrain the anxiety he felt when the turn for his benefit at Covent Garden came round. Every morning for more than a week previous he would go to the box-keeper's office to see how many places were taken, and a week before his last benefit observing the names to be few besides those of his own private friends, he said to Brandon, “Jem, if the nobility don't come forward as usual, I shall cut but a poor figure this time. “Don't be afraid,” said Brandon, I dare say we shall do a great deal for you to day. “Well,” replied Incledon, I hope you will, and as I go home to dinner I will look in again.” Incledon who was not very familiar with Debrett's Peerage, returning at four o'clock in the afternoon, hastened to the book and read the following fictitious names which Brandon as a joke had put down during his absence—

“The Marquis of Piccadilly.”

“The Duke of Windsor.”

(“Ah,” said he, “that must be one of the royal family !”)

“The Bishop of Gravesend and Lord Highgate.”

Well, said he, quite delighted, if we get on as well to-morrow as we have done to-day, I shall have a number of distinguished titles present.

Dr. Herschel.

DR. Herschel, the celebrated astronomer, was originally brought up to his father's profession, that of a musician, and accompanied a German regiment to England as one of the band, performing on the Hautboy. While acting in this humble capacity, in the north of England, a new organ was built for the parish church of Halifax, by Snetzler, which was opened with an oratorio by the well-known Jonah Bates, Mr. Herschel and six other persons became candidates for the organist's situation. A day was fixed, on which they were to perform in rotation, when Mr. Wainwright, of Manchester, played, his fingering was so rapid that old Snetzler, the organ builder, ran about the church exclaiming, "He run over the keys like one cat; he will not give my pipes time to speak." During Mr. Wainwright's performance, Dr. Miller, the friend of Herschel inquired of him what chance he had of following him? "I don't know" said Herschel; "but I am sure that fingering will not do." When it came to his turn Herschel ascended the organ loft and produced so uncommon a richness, such a volume of slow harmony, as astonished all present, and after this extemporaneous effusion he finished with the Old Hundreth Psalm, which he played better than his opponent. "Aye, aye, cries old Snetzler, "tish is very good, very good indeed; I will luf 'tis man, he gives my pipes time to speak."—Herschel being asked by what means he produced so astonishing an effect replied, "I told you fingers would not do, and producing two pieces of lead from his waistcoat-pocket said, "one of these I laid on the lowest key of the organ and the other I put on the octave above and thus by accommodating the harmony I produced the effect of four hands instead of two. This superiority of skill obtained for Herschel the situation, but he had higher objects in view, which did not suffer him long to retain it.

Stars.

Ye glorious orbs, that shine on high,
And stud the trackless realms of
space;—
O! tell me hath your undim'd eye,
Gazed on the great Creator's face?

And do ye pave the golden floor,
Where saints in perfect glory meet;
Or blaze upon the pearly door,
Where love is written underneath?

Or are your brilliant glowing spheres,
The homes of loved ones gone before;
Where we shall meet when this life's
tears,
Are lost upon that radiant shore.

And as we turn from earth's green
sod,
To pause and wonder what you are,
Revolving round the throne of God,
We see him in each shining star.

And when this life's grand histories,
Before assembled world's are read.
We then shall know your mysteries,
And why your countless lights were
shed.

And we the denizens of earth.
Shall fairer shine when you are gone,
And we the stars of lasting earth,
Shall put new life and glory on.

And as your brilliant grandeur
waves,
Changeless, immortal we shall live,
And praise God's handiwork in
strains,
That fading worlds can never give.

LEAH.

Booth Town,
March 12th, 1867.

The Voice of Spring.

I come, I come with my wings out-
spread,
To tell that the winter blasts are fled,
To wake up the buds, the grass and
flowers,
That long have slept in the woodland
bowers;
To call forth the hyacinths gentle
form,
That's long been hid, when the pier-
cing storm
Howled swiftly by with its icy breath,
Shrouding the land in a crystal wreath.

I come, I come with my magic wand,
To throw fresh gems o'er this sterile
land,
To call forth a thousand lovely sweets

That's long been lost in these lone
retreats ;
Where the silvery streamlet, rich and
fair,
Toddles along, and its music rare;
Awakens a rich and gladsome sound,
From those woodland glens that
scatter'd round.

I come, I come and the leafless trees
Put forth their buds, and a gentle
breeze,
Sweeps o'er the world with a noiseless
tread,
Touching its form, and its deep cold
bed
Yields up its mead of lovely flowers,

The choicest blooms of spring tide hours,
While the primrose pale and daisy fair
And a thousand star like sweets are there.

I come, I come for the Cuckoo's note,
Will soon be heard through the woods to float,
And the summer birds return again,
To warble each rich enchanting strain
They've brought from a land that's far away,
Where insects dance on the flow'rets gay,
And a host of lovely sweets repose,
Rich as the scent of the virgin rose.

I come, but my reign will soon be past,
And the pearls I bring will fade at last;
And the short-lived dream will soon be o'er-
And I shall go and be seen no more;
For summer will come and take my place,
And her gentle form my steps erase,
But her form like mine will droop and fade,
And all her sweets on the grass be laid.

W.M. HEATON

The Dying Pauper.

Slowly and feebly breathing,
The dying pauper lay,
His wrinkled brow o'ershadow'd
With locks long since turned grey;
And his voice was weak and trembled
As he chaunted this mournful lay.

"The winter wind is cold,
Yea cold in its lightest breath,
But colder still at my poor heart
Is the icy grasp of death;
I feel it on me now,
Freezing in every vein,
And yet a heat is on my brow,
A burning on my brain."

"I'm weary of this life,
So full of care and grief,
Midst turmoil sin and strife,
In vain I seek relief.
But oh! 'tis very cold,
My heart's blood chills so fast,
That ere this hour is told,
Death's stream I shall have passed."

His breathing faint and slow,
More faint, more feeble grew,
And his eyes so sunk and dull,
Assumed a leaden hue;
And ere that hour departed,
All death reveals, he knew.

R. D

Star-light.

Like specks of glitt'ring foam on some blue lake
 That sleeps in stillness 'neath the moon's calm gaze
 Shine out those stars; — each with its tiny blaze,
 Shedding what light its little lamp can make,
 O'er burn and brake.

Thus have ye shone, like angel-eyes so bright,
 Unmov'd, undim'd, age after age now lost
 In that uncertain vast with boundless coast,
 Form'd by Time's ceaseless adding day and night
 Robbed in his flight.

Thus have ye shone above the dreary plain,
 Gilding the scatter'd rocks cast on its breast
 By some strong power, long, — long ago at rest;
 Whilst rustling heaths a softly whispered strain
 Have sung in vain.

And o'er that spot, when first its turf was torn
 With the sharp plough relentless, as it laid
 Its beauties wild beneath its furrow made,
 Leaving its aspect more and more forlorn
 To greet the morn.

Thus have ye twinkled o'er the emerald blade,
 Forcing its way from out the broken loam,
 (Wherc once the timid hare secure did roam,
 Now fled from the usurpers power, dismay'd,
 To some quiet glade.)

And from your far off realms of space serene,
 Have watched the grain wave in your soothing light,
 (Each one bedew'd with liquid gems so bright,)
 Midst silence,—courting e'en a fairy's dream,
 Beneath your beam.

And o'er the unpretending cots that spring,
 (Emblems of industry and homely joys
 Where sylph like girls, and red cheek'd sturdy boys

Have laughed until the echoing rocks have rung;)
 Your rays ye flung.

And o'er the mansions of the rich, that peep
 Beneath the living curtain of green leaves,
 Which stately trees, and fadeless ivy weaves,
 Have kept your vigils whilst the favor'd sleep.
 The troubled weep.

And o'er the houseless one, whose softest bed
 Has been the stoney pavement; and the strain
 That lull'd to slumber was the hissing rain,
 Or biting wind, or some unsteady tread,
 By "Bacchus" led.

And o'er that spot, hallow'd and set apart,
 (The sure accompaniment of human life,)
 Whose little mounds memorials of the strife
 When death victorious, with his venom'd dart
 Had pierced the heart.

Thus dazzling still, as when from out the womb,
 Of chaos,—peeping bright,—like spangled flakes
 Dropped from some angels wing, that quiv'ring shakes
 The dust of Heaven o'er all that azure dome,
 To cheer the gloom.

And still unchanged, when in my earthy bed,
 (Away from cares which heavily oppress'd)
 Securely sleeping out that welcome rest;
 (Welcome to me if o'er the quiet dead
 Those skies are spread.)

Like some huge mantle, o'er heav'ns mysteries,
 Pierced in uncounted specks, through which the light
 Of glory peeps, sweet foretaste of the sight
 Of realms above; when long-lost friends in peace
 Wait our release.

In a Dead Donkey townt a Lesson.

Respectfully dedicated to my ill used, long ear'd friend.

Some fowk choose one thing, some another,
 To grace ther prose or rhyme;—
 Some sneerin say 'at tha'rt my brother
 Maks me choose thee for mine,—
 Well, let 'em sneer owd Neddy lad,
 Or laff at my selection,
 Who fail to see ther type i' thee
 Are void o' mich perception.—
 Ther's moor things stupid nor an ass,
 An' moor things badly treated.
 Tho we ait beef, an' tha aits grass,
 May be we're just related,—
 Throo toil an' trouble on tha jogs,
 An' then like ony sinner,
 Tha dee's, an' finds a meal for th' dogs;—
 We furnish th' worms ther dinner.

'Deemas an' 'Becca used to keep "th Cock an' Bottle" i' awr street;—they'd lived hear iver sin th' haase wor built, an' won ivery body's gooid word 'at worn't particlar abaght a sup o' drink. One day they sent aight invitashuns to all ther neighbors an' friends to come to a tea drinkin. Nivermind if ther wor'nt a rumpus i' that district, th' chaps winked when they met one another an' said "aw reckon tha'll be at yond doo?" "Aw mean to be nowt else" they'd reply, an away they'd goa i' joyful anticipation ov a reight sprec. But th' women! Hi! that's it!—its th' women ats' th' life an' soul ov a jollification yet. They wor buzzin abaght just like a lot o' bees, flutrin aight o' one door into another to see what soa an soa wor gooin in.

"What sooart of a bonnet are ta gooin in Zantippa? said Susan Stooanthrow, (or rayther aw should say Miss Stooanthrow for shoo thowt hersen th' lady o'th' ginnel)

Well awve nut made up mi mind yet, shoo says, but aw had thowt aw should goa aw hardly know ha;—but what does ta think o gooin in?

Well aw suppoosas its to be a varry spicey affair, soa aw had thowt aw should goa i full dress;—yo see being a single young woman an rayther a stylish shape aw thowt it ud just suit me,—What do yo think?

Just the varry ticket lass,—tha couldnt do better,—for as awve mony a time said to Betty Wagstang, thers noa body con mak up a mooar lady-like appearance nor what tha con when thas a mind;—but talkin abaght Betty,—has ta seen that new cap o hers?

Does ta mean that shoo bowt up th street tother wick?

Th same!—did ta iver see ony body luk sich a flayerow i all thi life?—her head reminds me ov a gurt pickled cabbage:—shoo doesnt keep up her color wi nowt tha may depend on t;—awther shoo can mak brass goa farther nor other fowk can, or else summat else:—but they tell me at thers nut mony shopkeepers abaght here but what has ther name daon oster nur they like on. But thats noa business o mine.

Aw shouldnt be at all apprised at that, for awve hecord fowk say at her family wor allus fond o summat to sup afoor shoo wor born, an they niver had a gooid word at th shop.—Is shoo gooin to be at this Swarry think yo?

At this what does ta say Susy?

Aw said Swarry;—some fowks call it Sooary, it means a party like yo know, its th french for a soocart ov a dooment, thots all.

O, weel awm sooary to say at boooth her an her felly has getten a invite, but tha knows we ve noa need to mix wi sich like unless we ve a mind;—awm capt whatiwer made Becca ax her, for awm sure shoo niver spends mich at their haase, an thers hardly a woman ith Ginnel but what ud rayther goa a mile aglit o ther rooad nor meet her;—but aw declare shoos comin sailing daon like a fifty gun ship (talk abaght owd Nick an he'll show his horns) shoos coming here as sure as shot,—shoo will shuv her nooas in whether shoos wanted or net.—

Weel Zentippa! aw do declare shoo is, soa we mun stand it aglit,—but aw shall be varry reverse i my talk yo'll see.

Gooid morning lasses,—said Betty fussin in, aw thowt awd just come daan to see what yo thowt o dooin abaght this doo at th Cock,—are ta baan Susy?

Yes aw expect soa, for aw received a billy duck the tother day a axin ov me to be present, if nothing didnt interspect my rangements no otherwise.

Why Susy! hang it up! sin tha began o dressmakin an wearin thi hair like th Hempriss Hugunny, aw can hardly tell what tha means. Are ta studdyin to be a Skoil-mistress?

Nut exactually, but yo see awve begun to talk a bit moor propperer, for when awve to do wi th quality fowk, gooid tal' an a gooid redress is one ot requirations at yo connot disperse wi;—but aw mun goa my departure for awve soa mich to execute afoor neet, woll awm fair consternationed when aw think on it, for awve noa body to help me nah, my prentice has to stop at hooam wi her father.

Ho eea! whi whats th matter wi him, is he badly?

He is,—for he hurt his leg a month or two sin an hes had to goa to th infarmry to get it anticipated.

A tha does nt say so! Why whativers that Susy?

To get it cut off, but awmn off.—soa away Susy flew daan th ginnel famously suited wi th way shood capt em wi her Scholarship.

Weel if iver aw saw sich a fly-by sky as yond Susy i all my life awll niver be trusted;—Guy ha e it! shoo mud be as handsome as wax work shoo thinks soa mich ov hersen, but aw fancy shooll ha to dec an owd maid, for its nooan her soocarts at th

Why Betty, if ther is ony body aw hate to darken my doers its Su-y;—shoo allus backbitin somedy, an as tha says shoo mud be th Queen oth land shoo thinks soa mich ov hersen, but aw fancy shooll ha to dec an owd maid, for its nooan her soocarts at th

fellies wants;—its all varry weel to sit nigglin away wi a needle an thread, stickin bits opooasies into cap screeds an stitchin moinshine, but when a felly wants a wife, he wants somedy at can brew, an bake, an scaar th flur, why aw could whip raand hauf a dozen sich like to mi thinkin, an when aw see her screwin up her maath an dutchin an settin her cap at ivery chap shoo sees, it maks my blooid fair boil in me, an awm sure if ther is a young chap abaght, shoos wur nur a worm ov a whoot backstun.

Odd-drabbit-it ! it caps me at fowl have noa more sense nor to invite sich like to a pairty;—but ha are ta off for clooas Zantippa ? Con ta leean me a undercoit ?

Nay lass awm sooary to say aw connot, for th last doo aw wor at, aw had to borrow one o Susy, but awve getten one sin then but aw connot spare it.

Aw wonder if Susy ud leean it me said Betty; Aw hardly like to ax her for tha sees aw didnt give her thjob o makin yond cap.—Thas seen my new cap hasnt ta ?

“Eea, aw saw thi have it on tother day.”

“Well, aw call it a nobby en ;—but awd better nut waste ony time, soa aw'll goa to Susy's an' see if I con borrow yond coit; shoo can nobbut say “Noa.” An' away went Betty. “An' its to be hoaped she will say ‘noa’ said Zantippa, for if tha gets it shoo'll ha to luk sharp aghit if iver shoo sees th'edge on it agean. Aw'd leean thee nowt unless awd made up my mind to pairt wi' it. Aw dooant think mich o' Susy, but shoo's worth a barrow looad sich as thee. Bith heart ! tha'd ma' a daycent looad for a barrow thisen, an' if all's true aw've heared its nut long sin tha wor one an' had a Bobby for a coachman. But that's nowt to me. He gow ! its turned o' twelve o'clock, an' my chap an childer'll be hooam to th'dinner. Consarn it ! aw hate to live amang a lot o' gossipin fowl sich as ther is abaght here, noa body can get to do owt. Be hanged ! if th'fire isn t aghit ! an' aw expect it'll ta me as long ageean to leet it coss aw'm in a hurry,—thers niver nowt done reight when a body's in a fullock. Aw wish ther tea drinkins wor far enuff; aw declare aw'd rayther sail across th'salt seea nor be put into sich a moild as this,—yond's th'bell, an' they'll be here in a minit. A'a dear ! a woman's wark's niver done.

“Aw think it niver is done be th' luk on it ” said Dick as he stept into th' haase “ha is it ther's noa dinner ready ? Its wur nor th' weshin day.”

Dinner !! Tha may weel ax abaght th'dinner said Zantippa, doesn't ta see at th' place is full o'rick ? Aw dooant know what tha means to do, but if we cannot have that chimley altered aw know one 'ats baan to flit—a woman may work her fingers to th' boooan an' niver be noa better ! ”

“Aw niver knew at it did smook afoor, but this foirs nobbut just lit, whats ta been dooin baght foir ?

Foir !—does ta want me to be smoord ? Its grand for yo at con walk aghit to your wark as soon as yo get up, an just come in to your meals, an aghit agean,—but yo niver think o whats to come o me ats to tew amang it thro morn to neet.

Why lass, ha is it at it niver smooks ov a Sunday ?

Ha con aw tell gurt maddlin ! tha mun ax it. Cant one o yo childer get th bellows an blow a bit, or are yo baan to stand thear wi your fingers i your maath woll aw fair drop ? But it'll nut allus be soa, yoll get my heead ligg d low some day, an then yoll have to shift for your sen.

After a gooid deal o botherin an grumlin, an a verry deal o wangin thcubbord doors an clatterin th pots abaght, Zantippa managed to mak a sup o coffee an butter a bit o bread. Dick didnt like this, but as he saw his wife wor th wrang side aghit he thowt for th sake o peace he'd say nowt, so he swallowd his coffee an cake if nut wi thankfulness, at least i quietness, an then him an th childer budged off.

Thear! said Zantippa, as shoo watched om aghit oth seat, awve managed that varry weel,—aw wodnt ha let him know for all th brass ith bank at awd letter th foir goa aghit woll aw wor tawkin. Aw do hooap at therll nut a wick soul come an bother me agean to-day, for awve niver had time to tak th cowks up yet, an awve all th stockings to mend at should ha been done last week, an aw know Dick hasnt a button left on his halliday shirt, its time somdy stirred ther sen. Aw dooant know ha fowk manage ats allus gaddin abaght, aw declare if aw ammut allus slavin at it aw cannot keep things nowt-like straight. Dash it up! (at aw should say sich a word) ther's Betty comin agean. Awd rather be stransported to Botany Bay nor be as aw am, for thers hardly a minit but what thers somdy oth doorstun

Betty coom in smilin all over her face, "Nah!" shoo says "Ave managed, an awve come to see if thall goa wi us, for Susy's baan up th street to buy a staylace an as th sun shines aw thowt awd just goa an get thstink blown off, for awve caawerd i this fold woll awm feared awst grow maald. Put thi bonnet on an goa wius,—west be back i gooid time.

Aw could like to goa weel enuff said Zantippa but aw hardly dar, for woll aw wor talkin to thee an Susy this fornooin, th foir went aghit, an when Dick an th childer coom hooam ther wornt a bite o dinner ready.

Well awm capt at thall bother wi cookin em dinners;—aw allus let awrs tak ther jock wi em for th day, its a deal less trouble, an aw contend a woman's wark enuff,—shoo addles owt shoo gets;—an if we dunnot luk after ussen nobody else will for us,—but please thisen,—if tha doesnt tha darnt.

O, as to that, aw dar goa but as awve nowt to goa for, an lots o wark at hooam, aw think awd rayther nut.

Well, thall get noa better thowt on for cawerin ith haase like a mold-warp, —but aw mun goa for Susys waitin. Away went Betty, an Zantippa ommost rued at shoo hadn't gooan too;—but it wor nobbut for a minit,—for shoo teed her appron string a bit tighter, tucked up her sleeves, poold in a long breath, an as shoo said, 'began to make a sidation.

If iver yo want a chap to study a bit, and resolve to mend his ways, let him be quiet;—but if iver yo want a woman to start o thinkin an resolvin, be sure an let her have summut to do. If a woman sits quiet, shoo begins to mump. Aw hardly iver met a woman at could sit daan quietly for five minits without sighin' too or three.

They'll, an think, an sigh, an shak ther headds; an if theyre let alone they manage to work thersen into a bad temper abaght summat, but what that summat is, aw niver met one at could tell.

Well! Zantippa didnt sit daan an mump, but up stairs shoo flew an made th beds, an a rare shakin they gat, for shoo wor just full o summat, an shoo mud ven

her feelins somway. Women have a deal better way o managin that soort o thing nor what men have. Ther are times when we all feel brimful o summat at wants to come aghit; th steeams up, an if we connot find a safty-valve we shall brust. Nah, a woman drives up to th elbows ith weshin tub, or rives all th carpets up, or pools all th pots aghit oth cubbord, an puts em back agcean,—shoo lets her tongue have free liberty, an what wi talkin, and sweatin, and scrubbin and brushin, shoo fiuds hersen reight daan tired, an after a bit ov a wesh an snoddénin her toppin, shoo sits daan to her knittin or sewin, as cool as a caahcumber an as full o gooid natur as an eggs full o mait, an her een sparkle wi pleasure like dew drops sparkle ov a rooas on a summers mornin. But wi a chap its different;—i nine cases aghit o ten, he flies toth ale pot, or else he begins grumlin at hooam—th teas hot,—or muffins cowd, or th breeads sad, or butters war nor cart-grease;—th childers noisy, or th wifes quiet, an noa matter whats done for him, its all wrang. Sometimes bith way ov a change, he'll pawse th table ovver an braik as monny pots as it'll tak a gooid pairt ov a weeks wage to buy, an at last, after makin every body abaght him miserable, he'll goa to bed lukkin as black as a mule an sleep wol mornin, when (unless hes ov a bad soort) he'll feel reight daan-shamed ov hissen an set to work to put things reight agcean. Zantippa wor just i one o theas moods;—an shoo made th beds, coom daan th stairs an weshd up th pots,—scaled th foir and took th ass aghit,—gave th hearthstun another dooas o idleback,—scattered a bit o fresh sand oth floor, an after weshin hersen an donnin a cleean print dress, shoo laid th table ready for th tea, gate th kettle onto th rib an set daan wi her bag full o worset an a heap o stockings, an as shoo lukk'd raand shoo felt as pleead as punch to see what a difference shood been able to mak in an haor two.

Awm nooan sooary at aw stopt at hooam shoo said to hersen, aw know Dick ll be suited when he sees all fettled up;—an if aw get theeas stockins done to-neet theyll be aghit oth gate. Aw wonder ha it wor at he tuk things soa quietly this nooin? Aw dooant think its reight when a chaps been workin iver sin six ov a mornin, for him to come hooam an find noa dinner ready; reight enough a woman's plenty to do, to follow her haase, an cook an mend, an one thing an another, but if ther wor noa wage comin in, aw fancy ther'd be less cookin an moor mendin. Awve made up my mind woll awye been siding up, at awll nut waste my time as aw have done, talkin an gossipin, for thers noa gooid comes on it,—an although aw want to keep thick wi mi neighbours, awm detarmined at awll chop that soort o thing off at once; for as my mother used to tell me, if ther wor noa lisseners ther'd be noa tale tellers, an th time at one spends i gossipin, its war nor wasted, for it oft leads to fedin and provin, for them at come an tell yo summat abaght somdy else, theyll just as sooin tell somdy else summat abaght yo. An luk what scrapes one gets into witit,—nah aw made Dick believe at th chimley smookd; that wor a lie to say th least on it, an he'll be sure to nooatise at it doesnt smook to-neet, but if he names it awll tell th truth, for awm sure nooa gooid comes o lying.

When Zantippa had just made this resolve, th door oppend an Dick an three childer coom in throo th milin. He saw th difference in a minit.—Wipe them clogs, he said as th childer wor walking in.—Thas been fettlin a bit lass, aw think,—are ta baan to ax some oth neighbours to ther drinkin?

Noa, shoo says awm baan to ax noabdy but thee an th childer;—does ta want

me to ax somdy?

Nay nooan soa!—Awd as gooid as promised to goa on as far as Th Cock to neet, to talk over this bit ov a doo;—but aw think awll stop at hooam, what thinks ta? Zantippa smiled, nay even blushed, shoo knew what he meant an shoo felt pleased;—it wor a bit ov a compliment an it paid her for all her trouble.

Please thissen shoo said as shoo poured aight a cup o tea for him, an lifted a pile o totoast aight oth oven, but aw think thart as weel at hooam

An aw think awm better he said as he lukd raand,—Aw think th chimley doesnt smook as ill as it did does it? an he lukd her fair ith face. Shoo hung daan her heead, an stooped to pick a pin off th floor but shoo couldnt find one; an when shoo lukd up, ther een met. Shoo didnt spaik nor moor did he—theyd noa need.

It wor a long time sin theyd had such a comfortable tea, an when theyd done they sat for some time i silence. Ha long they mud ha set aw connot tell, hadnt th door oppend an Betty come runnin in to beg a sup o hot watter,—for shoo said her chap had coom hooam an shood been rayther longer aight nor what shoo expected, an he wor playin the varry hangment for his drinkin. Shoo gate her hot watter and went her way. Dick lukd at his wife, an takkin howd of her hand said, Awm glad at tha hasnt to goa seekin hot watter for th tea, an aw hooap tha niver will have.

Aw hope nut shoo said, an sat daan evidently varry ill set to see her stockin.

Nah what a little can mak fowk happy or miserable; Dick wor as content as a king becos all th haase wor tidy;—he saw at somdy had been trying to mak him comfortable, an shoo wor as delighted as if shood getten a fortin left becos what shood done had suited him.

When all childer had getten put to bed, Dick said, lass, awve been thinkin at aw dooant care soa much abaght gooin to this doo, for awve a noation at we connot goa an get us tea withaat stoppin an spendin a bit o brass at after, an awve heared thi say at thart fast for some flannel, an thus been forced to borrow some clooas when thus set off ony where; nah if we stop at hooam an spend th brass o what it is tha wants it ll do us moor gooid nor th ale.—What says ta?

Just pleas thisen Dick,—aw had thowt o gooin, but as tha says its sure to cost summat an awr Billy wants some new clogs, for yond taks watter varry ill;—an aw think we con have as comfortable a tea at hooam.

Awm sure! an a deal better! an soa as thas decided nut to goa, awll tell thi ov a marlock some oth chaps has been playing, but tha munnot split, for it wornt meant to get aight till after th party. Tha knows Hungry at work wi us?

Does ta mean him at once ait a pail full o draf?

Th same chap,—an he declared if he gat aside oth steaks he d polish th lot, (an aw believe he can ait owt less nor a bullock;) soa some oth chaps made it up at he should have a dish to his own cheek,—but theyd to be donkey steaks—for owd Labon (at hawks cockles an mussels) had let his donkey catch coud or summat, at onyrate it deed, an soa they thowt if they could get some steaks off that, theyd just come in; but they knew Labon ud rayther pairt wi his heead nor let any body mell oth donkey, for he thowt as mich on it as if it had been a christian, but they detarmined to skeeam some way to get it, soa Joa Longfoot offered to goa into th yard where it wor an cut

off one hinder leg an tak it hooam, if Sam Sniggle ud watch aghit to see at nobdly coom. Labon kept his donkey in a place oth top oth long steps, an used to go round th back road to it;—so one dinner time they watchd Labon aghit oth yard (where he'd been standin rubbin his een, an strokin his owd favorite) an when he'd gotten nicely off they ventured to try ther luk. Joa Longfoot went up wi a gurt carvin knife an left Sam at th bottom to whistle if he saw onyboddy commin,—an he stood thear for a whle, but he wanted a bit o bacco, an ther wor sich a wind ith steps well he couldnt get a leet soa he went across th road into a doorhoil for shelter. He wornt away aboon a minit or two, but when he coom back, what should he see but owd Labon ommost at top oth steps. He hardly knew what to do, but he managed as much wind as made a whistle, an stood watchin for th next move. Joa heard th signal; but it wor too lat for he couldnt get aghit unseen, an he'd just gotten th leg cut off ready for takkin away;—soa seizin hold oth shank, he waited for old Labon's hat showin aboon th wall top—when he gave it sich a clencher wi th thick end oth leg well it foored th brewardrs reight onto his shonlder,—then he laupd over th wall an ran hooam wi his prize as fast as his legs could hug him,—leavin Lahon to find his way into dayleet agean as weel as he could. Sam met him at th haase an they wornt long i cutting some grand steaks off, an putting em ov a dish ith cubbord, an when theyd done that, th bell rang an theyd to goa back to ther wark. When Labon gate his hat once moor on th top ov his heead, he went to see his owd deead friend, an when he saw it liggd wi nobbut three legs, he vowed vengeance agean them at had done it, an swore if iver he fan it aghit he'd mak em pay for it,—for it wor nowtnoa lessnorrobbinth decad, an he'd have em tried for *assassination*.

Joa's wife wor aghit when they took th leg hooam an after theyd cut th steaks off, theyd hid tother pairt under th coils. They hadnt been gooan long when shoo coom in, an as shoo wor getting th pots aghit oth cubbord shoo saw this dish full o steaks.—A a! shoo says, its just like yond chap to put theas in here an say nowt abaght it,—but I can just relish one o theas to my drinkin, an aw dar say Joa'll want one, an awm sure th childerll do wi a bit;—we havnt had as mich flesh mait i awr haase afoor for mony a wick.—Fotch that gridiron Polly an lets cook this;—awst ha to do it oth coil, ther isnt fat enough abaght it to fry it.

Shoo wornt long afoor shoo had it nicely cooked an th tea made, an a thowt struck her, at shood ax Sams wife an th childer to ther tea, for shoo knew at they didut oft get steak at their haase;—soa Polly went and browt Mistress Sniggle an all th childer to ther tea, an as ther wor eight on em they varry sooin put thersen oth nightside oth steak.—When theyd done, they set to work to get some cleean pots ready for Joa an sent Polly to watch th miln lawse, to tel Sam to come wi him.

All things were ready, for em when they coom, but ther minds wornt easy, for therd been a policeman axin abaght em at th miln;—for Labon had seen Sam lukkin aghit, an he thowt he knew summat abaght it; sea theyd agreed theyd niver own to it, to a wick soul.

As sooin as they step d in they smel d what wor up, for Joa knew ther wor noa mait ith hease else, an his wife had noa brass to buy ony. He lukd at Sam, and thear they stood ith middle oth floor, as white as two ghosts, but, they darnt spak, and boath

waited to see what tother did.

Come on to yor drinkin said th women. Aa ! thart a grand en Joa said his wife, to put them steaks ith cubbord an niver say a word abaght it, an tha knows ha fond aw am ov a bit o steak, an its a bit o nice mait too, tho it isnt as tender as some ;—weve savvord it, aw con tell thi, for considerin th price o mait nah, a gooid steaks hardly within th raich o workin fowk.

Joa wor dumbstruck,—he stirred his tea, but he couldnt tak his een off th steak. Sam rested his heead ov his hand an said he wor poorly.

Its for th want o some gooid support mun said his wife, Get some o that mait into thi,—its made me feel a different body ;—aw.n as frisky as a young foil ;—an luk at th childer ;—theare wrastling theare like young bullocks, mun it puts a bit oth natur oth beast into em.

But Sam declared he felt poorly, an couldnt touch mait, but Joa couldnt spaik at all. As he sat starin at th dish, owd Labon went passed th door (wi a basket oawther arm,) shaating aghit, Cockles alive ! Mussels alive oh ! ! As soon as Joa heard that, he seized a fork an stuck it into th mait wi such a force at he smashed th dish an pinned it fast to th table. Wo up ! he said, stop thee theare !

A'a Gaumless ! has been having summat to sup this afternooin aw can see,—tha mud ha thowt owd Labon wor calling oth steak.—But poor Joa couldnt get a word off ;—drops o sweat stood ov his forehead as big as pays, an he couldnt tak his een off th mait,

Is ther summat wrang wi that steak maks thi at tha connot touch it ? awm sure its nicely enuff ;—what is ther to do wi thee ?

Oh th steaks reight enuff said Joa (findin courage to spaik) th steaks all reight, but awm nut ith knife and fork line to neet,—Whats that noise ? he said starting aghit ov his cheer, wi his hair ommost studden ov an end, an hiseen starin an his teeth gurning like a sheep heead between a pair o tangs.—

What noise ? does ta mean that rawtin ith cellar ?

Eea !

Oh is nobbut th childer ;—some ov ems reck ning to be donkeys an tothers drivin em, theyve been at it iver sin theyd ther drinkin ;—its that mait ats suited an soa mun, woll they dunnot know what to do.—

Awm off hooam said Sam, awm varry poorly.

Why yo booath luk awther poorly or summat said his wife, an aw think th sooner yo get to bed an th better. Sam an his wife an childer went hooam, an it wornt long afoor Joa wor burrying his heead under th blankets an tryin to fall asleep; but he couldnt.—As soon as he began to dooze off he began dreamin at he wor tryin to swallow a donkey an he wakkend wi it stickin in his throat.—Th next morning when they met, ther faces luk'd moor like two dazed cakes nor owt, for they hadnt a mite o color left.

We're reight in for it this time Sam, said Joa ;—aw believe this job 'll tell of itsel. Does ta think at it maks ony difference to fowk at ait Donkey beef.

Weel aw cant tell, but aw did once know a chap at wor a reight caufsheead, an he hardly iver ait owt but veal ;—an th bass singer at awr church gets bacon to ommost ivery meal, an tha knows he grunts as ill as a pig ;—an awm sure my childers ears lukd

longer to me this mornin or else aw thowt soa.

Weel, awm sure my wife snoord ith neet more like a donkey rawtin nor owt else;—an th first thing awr Isaac axed me this mornin wor to buy him some panniers so as he could be a mule.—But what are we to do wi yond tother pairt oth leg?

Oh, we mun bury that.—Noa moor truck wi that,—an aw think wed better ax some advice abaght them ats etten tother, for it wod be a doo if theyd to start of growin tails or summat.—Thers no telling.

They wor boath on em terrified aghit o ther wits, soa they left ther wark an went to see owd Hanson ats varry skilful i heearbs, an, they telld him all abaght it, an axed him if he thowt it ud mak ony difference to them at had etten it?

Noa, he says, considerin what sooart o fathers they have, it hardly con mak mich difference to th childer and if th wives get rather unruly, yo mun try an bridle em a bit;—but if yoll act o my advice for th future, yoll let that alooan at doesnt belang to yo,—for yoll allus find at owt getten dishonestly is sure to breed more trouble to yo, nor what th loss ll mak to them yove taen it throo;—soa goa hooam an bear i mind at honesty is the best policy, an if owd Labons donkey has towt yo that lesson it hasnt deed for nowt.

They went back to ther wark, bnt somha or other its getten aghit, an they say owd Hanson tell'd, but be that as it may aw consider they wor reight serv'd, an aw dooant think they ll show up at th Cock.

Well aw niver heared sich a tale i all my life said Zantippa, an aw should think they ll niver see a donkey withaat thinkin on it, an if soa itll noa daat be for th best;—an noabdy owt to be aboon learnin when theyve a chonce, an aw think awve leearn'd a lesson mysen to day.

Does ta lass! an what is it?

Why, at to mak hooam comfortable owt to be a womans furst duty; for a cleean hearth an a cheerful fire do a deal towards makin a cheerful heart, for when a haase is upset a chaps temper gets upset, an its better to prevent a few cross words nor to try to make it up again.

Thart a gooid lass Zantippa,—God bless thi!—Its time to goa to bed.

J. H., Hx.

The Storms of the Winter 1865-6.

WHICH of us can stand unmoved by the sea-shore, and watch the mighty billows of the restless ocean as they come thundering against a rock-bound coast? Does not a feeling of terror even mingle with the sense of grandeur which seizes upon the mind? It is only, however, when we observe the

vast world of waters from season to season, see in its thousand changeable moods of storm and calm, ebb and flow, brightness and gloom; see the mighty swell of the tidal wave as it heaves its silent mass beneath the moon; see the onward march of the great gulf stream as it cleaves its way through the trackless waters of the Atlantic,—that our sense of wonder assumes a definite shape and at once impels us to ask for the causes of such marvellous phenomena.

But there is another ocean with its mountain waves and billowy surges, its grand tidal currents attending upon the sun, its ebb and flow, storm and calm; and when we consider it in the light of systematic observation we may not find it difficult to believe that it is an ocean whose phenomena are even more majestic, more terrible, and more interesting than those of the great deep. We speak of the ocean of air at the bottom of which we live and move.

We propose, on this occasion, to describe this ocean in some of its aspects as manifested to us in the winter of 1865-6, a winter which will long be remembered as unusually stormy and wet.

Now we are far from thinking that the destructive tempests which annually sweep over the western Atlantic, are of all meteorological phenomena the most interesting and instructive. The vast amount of human suffering alone which they cause is enough to lead us to study the laws by the knowledge of which we may be enabled to forewarn our ports of their approach. It is, however, by the methodical study of the weather during its ordinary state, that the simple laws which govern its proverbial uncertainty are to be discovered. Inasmuch as hurricanes which we every year experience, even at this distance from the sea, have an interest for all and in the hope that the study of them may lead many to become careful observers of the weather, we shall proceed at once to make a few remarks on atmospheric waves and then to examine in detail one of the great storms above referred to.

As the ocean has its daily ebb and flow, so the air above and around us rises and falls every day under the powerful influence of the sun, rising as his rays become more intense and falling again as the night approaches. The whole mass of air above us heaves and swells and assumes the form of vast waves ever flowing forwards, and from side to side as they are influenced by heat and cold. But this huge heat-tide is not the only disturbance to which our atmosphere is subject. There are other great waves moving across whole continents, thousands of miles in

breadth, thousands of feet in depth, depending for their existence upon great local differences of temperature, &c., &c.

These atmospheric waves have been very carefully studied. On the 21st of September, 1836, a wave of air passed over Halifax and the west of continental Europe from NWW to SEE. This wave was 1,000 miles broad and took 26 hours to make its passage at the rate of 26 miles per hour. Another similar phenomenon passed on the 21st of December, 1837, at the rate of $18\frac{1}{2}$ miles per hour. The level strata of the air of this majestic wave rose and fell through a vertical height of 1000 feet. It has long been known that such a wave passes across our island in the month of November called "the great November wave." It travels from NW. to SE. at the rate of about 20 miles an hour, embracing the whole of Europe and not unfrequently brings the most fearful hurricanes of the winter season. The depth from crest to trough is often more than 1000 feet. In fourteen days it makes its transit, and has a breadth of 6000 miles. Any one possessing a good barometer may watch the progress of this interesting phenomenon.

The storm which we now proceed to describe was part and parcel of this November wave. In doing this it will be our endeavour to interpret the phenomena as they present themselves, and by our method of treatment indicate a simple way in which any intelligent person who has a barometer and a thermometer may not only foresee a coming storm, not only make such observations as will enable him to judge of its characteristics, but also may record such facts as will be of real value to a science which is pre-eminently one of observation. We will take the storm which visited this district and indeed the whole of England about the 22nd and 23rd of November, 1865.

Let us go back to the 18th of November, and examine the various indications given by barometer, thermometer, cloud, wind &c.

On the 18th, the barometer began to fall:—the electricity of the air was positive and the amount of the free fluid considerable:—the wind was W:—a filmy white veil of cloud was often suddenly thrown over the sky a sign of wind or unsettled weather.

On the 19th, the barometer still fell:—there was little free electricity:—the wind had gone from S. to W. against the motion of the sun—not a good sign:—the wind was up all the night and gave 6 lbs at the highest pressure:—some rain fell:—the wind went to W. again:—calm night:—more free electricity.

On the 20th, the barometer still fell:—the wind W:—colder:—calm:—air full of vapour.—at 10 p.m., the wind became gusty and some

rain fell.

On the 21st the barometer fell more rapidly:—the wind was SSE:—peculiar clouds in the upper strata told plainly of the presence of the warm Southerly current:—at noon the wind rose higher and gave a pressure of 7lbs. :—distant objects could be seen with unusual distinctness—a sign of rain, during the evening the sky was often covered with a thin sheet of white cloud in a few minutes—indicating wind and rain frequently.

The tempest is now raging with great fury on the coasts of Ireland, and our barometer is falling rapidly. Let us then collect the indications of its approach before we record its violence on the 22nd and 23rd. And first, we will note the important fact that our barometer has been continuously falling ever since the 18th, and the fall per hour has been increasing every day, plainly telling us of a long period of unsettled and perhaps stormy weather. Its rapid fall during the night of the 21st and the morning of the 22nd, warned us that the terrible vortex was not far away from us, and to the westward, perhaps even then rushing with resistless fury across the great limestone plain of Ireland. We know that it will approach us from the W, because the mercury has fallen so considerably owing to the approach of warm moist light air from the south. The unsettled state of the wind for the preceding three days, and its frequent changes against the sun, pointed to a strife between the cold air from the north and warmer air from the S, and the barometer foretold the issue of the strife. The variable temperatures also confirmed this.

The face of the sky has almost daily given proofs of great atmospheric disturbance.

As early as the 20th the long fitful gusts which are a characteristic of winds from the W, were heard in the evening. Now for the 22nd the day when the storm passed Halifax.

The 22nd brought the storm in all its fury. From early morning till 12.30 p.m., the barometer fell fast; the temperature of the air rose; the wind moved from S.E. to S., and then to S.W., and its force increased from 2 to 2 lbs. before noon. Nearly 0.2 inch of rain fell and the sky was a mass of dark cloud driving along with the wind. Soon after midday the barometer began to rise, and before 1.30 p.m., the wind had got to W, and its pressure had reached 20 lbs. on the square foot. Torrents of blinding rain were now thrown down from the sky.

At 3 p.m. the wind registered 22 to 25 lbs. per square foot, and the rain became so dense and the drops so large that the air was darkened by them. At 4 p.m. the wind was still very high and showers of hail and rain continued to fall. The wind had now reached the N.W. From noon to 4 p.m. the mercury in the barometer rose and fell with every gust. All the evening the wind blew with great force, accompanied by rain, hail, and lightning. Soon after 3 p.m. the barometer began to rise rapidly and the temperature fell.

A careful study of these westerly gales during four years has led to the following conclusions:—

1. The violence of the storm is in direct proportion to the suddenness and extent of the barometric depression.
2. The barometer continues to fall until the storm is near its height and then rises, so that the greatest force of wind may be expected soon after the barometer rises from the lowest point.

3. The barometer usually rises rapidly when the storm has reached its height.

4. When the barometer rises very rapidly the storm will very probably be renewed with greater violence before 24 hours have passed.

5. The wind usually moves to the W. from the S. or S.W. before it reaches its highest force, and soon after goes suddenly to the N.W. as the barometer rises.

6. No great amount of rain falls before the rise of the barometer. The greatest weight comes after the wind has got to the W and N.W., and is often accompanied by hail and lightning.

7. The temperature usually rises until the wind is wildest and then begins to fall.

The following directions will, it is hoped, be found useful in studying the westerly gales:—

1. If the barometer should fall continuously for a few days, watch it carefully, taking a reading every three hours. If it should then begin to fall rapidly, (say one-tenth inch in one or two hours) observe it every hour. It is of the first importance to watch the barometer, inasmuch as the time when it ceases to fall is usually about or a little before the time when the wind is highest, the rain heaviest, the temperature falls and the wind moves to the N.W.

2. Read the thermometer every hour when the barometer falls rapidly, and every half hour when it ceases to fall and begins to rise. The temperature begins to fall usually when the barometer begins to rise.

3. Watch the wind while the barometer falls, and especially when at its lowest point. It will be found to veer suddenly from S.W. or W. to N.W. when the storm is about its height.

4. The mercury in the tube of the barometer will be found to rise and fall with every strong gust of wind during the storm. Note the hour when the oscillation commences, when it is greatest, and when it ceases.

5. Note the exact local time when the barometer reaches its lowest point, when it begins to rise; also when the temperature ceases to rise, when it reaches its highest reading, and when it begins to fall.

The times when the wind passes the S.W., W., and N.W.W. points should also be noted.

6. If in addition to the above records, the observer will venture out in the wildest hour and take the pressure or velocity of the wind by means of a small portable wind-gauge, he will possess a valuable record of a most destructive and interesting phenomenon.

7. The rainfall should be noted while the storm is rising, and also the quantity that falls during its height, and as it subsides, more rain usually falls at the two latter periods.

8. An hour's watching of the heavy gusts peculiar to these westerly winds, especially if the intervals of time between be noted, will give a good idea of this characteristic. The easterly winds blow very steadily, and often their hourly velocity has been observed to remain perfectly constant for more than a day.

9. Sometimes a lull occurs before the wind reaches its greatest force.

The Phenomena may be briefly stated under this head.—

1. Gathering of the Storm.	Barometer falling:—
	Thermometer rising:—
	Wind rising higher every hour, with long gusts:—
	Cloud driving along the sky:—
	Some rain.
	Wind S., SW. or W.
	Barometer violently agitated:—

2. Storm at its height. { Barometer falls rapidly, remains stationary for a short time, then rises fast.
 Barometer violently agitated:—
 Rain in torrents:—sometimes hail:—
 Wind is highest:—if a short lull occur the storm will be renewed with greater violence.
 Wind going W. and NW.
 Temperature falls quickly and suddenly:—

3. Storm subsides. { Barometer rising fast.
 Wind high for some hours:—
 Temperature falls:—
 Wind getting more to N:—
 Showers of rain and hail; and sometimes lightning flashes in sheets about the dark blue sky:—
 Clouds pass away, often leaving a starlit sky.

JOSEPH GLEDHILL, F.G.S., F.M.S.

King Cross, Halifax.

Scientific Gossip.

Lime-light for Locomotives.—This is now used with excellent effect on the Pennsylvania Central Railroad. A jet of gas from a reservoir, mixed with atmospheric air, is supplied by a small pump worked by the engine. The mixed gases are heated in a small coil of tube, before issuing from the jet, and are thrown in a state of ignition on the lime.

Cleaning Glass.—A plan useful for many purposes is recommended as follows:—dilute the ordinary Hydrofluoric Acid as purchased in gutta percha bottles, with 4 or 5 parts water; drop it on a cotton rubber, and

rub well over the glass, afterwards washing till all the acid is removed. A thin film of glass is thereby dissolved off, and a fresh bright surface exposed.

To Smokers.—M. Melseus advises smokers to put in the barrel of their pipes or of their cigar-holder, a piece of cotton impregnated with a mixture of tannic and citric acids. The smoke passing through the cotton, leaves the nicotine, which combines with the two acids.

The Earth's Axis.—The alteration of the earth's axis of rotation by tidal friction has by some physicists been assumed as a sufficient explanation of changes in the earth's climate. Mr. Stone, of the Royal Observatory, Greenwich, has investigated the question; and, in the Monthly Notices of the Royal Astronomical Society, has demonstrated the failure of that theory to account for the phenomena. Geologists who have built up elaborate arguments on that assumption will have in consequence to reconsider their conclusions.

Manufacture of Oxygen.—It is stated that the cost of Oxygen procured by the decomposition of sulphuric acid by heat, will be no more than about $2\frac{1}{2}$ d. per cubic yard!

Obtaining sections of soft tissue for the Microscope.—At the monthly meeting of the Quekett Microscopic Club at University College, on 26th April, Dr. Halifax described an ingenious process for obtaining thin sections of insects, soft vegetable tissues, minute seeds &c., by immersing them in melted wax, and when cold slicing them upon the ordinary section table.

Drilling Glass.—There is an old and well-known method of drilling glass by means of a file dipped in oil of turpentine. A correspondent of the Chemical News states that a file dipped in diluted sulphuric acid (1 : 5) drills glass very much easier than when wetted with turpentine, while at the same time, strangely enough, the file or drill is less acted upon.

Uses of Epsom Salts.—A strong solution added to whitewash will produce a beautiful white for ceilings of rooms. A small quantity mixed with starch increases considerably its stiffening powers, and renders the article to a certain extent fire-proof.

JOHN NOBLE, F. C. S.

Botany.

(CONTINUED FROM PAGE 134.)

Amentiferæ.

195. Crack Willow. *Salix fragilis.* May.
Banks of streams; Dam Head in Shibden, common.

196. Great Sallow. *S. caprea.* May.
Banks of streams; Shibden and Ogden, common.

197. White Poplar. *Populus alba.* April.
Damp woods in Shibden, not common.

198. Aspen. *P. tremula.* April.
Near Walterclough, not common.

199. Blaek Poplar *P. nigra.* March.
Damp places and banks of streams; Dam Head in Shibden, common.

200. White Birch. *Betula alba.* May.
Woods in Shibden, not common.

201. Common Birch. *B. glutinosa.* April.
Woods in Shibden, not common.

202. Alder. *Alnus glutinosa.* March.
Banks of streams in Shibden.

203. Beech. *Fagus sylvatica.* March.
Woods in Shibden, common.

204. Sweet Chestnut *Castanea vulgaris.* May.
On the banks of the Red beck, near Lee lane in Shibden.

205. Horse Chestnut. *Aesculus Hippocastanum.* May.
Common in woods and plantations, Shibden. "A native of Asia whence it was introduced into Europe about the middle of the sixteenth century."

206. Oak. *Quercus Robur.* May.
Woods in Shibden, and Shroggs wood near Ovenden, common.

207. Hazel Nut. *Corylus Avellana.* April.
Hedges and woods in Shibden, common.

Coniferæ.

208. Yew. *Taxus baccata.* March.

Planted near old buildings and in Churchyards.

The Churchyard at Ripponden is planted round with about eighty Yew trees, trimmed in the shape of Funeral plumes, giving an air of deep solemnity to the place.

209. Scotch Fir. *Pinus sylvestris.* May.
 A native of the Highlands of Scotland, but commonly met with in plantations.
Dioscoreaceæ

210. Black Bryony. *Tamus communis.* May.
 Hedges and thickets; Shibden and Hipperholme.
Orchidaceæ.

211 Early purple Orchis. *Orchis mascula.* May.
 Hilly pastures at Upper Shibden.

212 Spotted Hand-Orchis. *O. Maculata.* May.
 Damp meadows and wet places at Upper Shibden, and at Ogden.

213 Aromatic Orchis. *Gymnadenia conopsea.* June.
 Hilly pastures at Upper Shibden, and at Ogden.

214 Frog Orchis. *Habenaria viridis.* June
 Dry hilly pastures near Ogden, not common.

215 Butterfly Orchis. *H. bifolia.* June.
 Fields at Ogden and in Luddenden Dean.

216 Tway-blade. *Listera ovata.* May.
 Woods and meadows, in Luddenden Dean.

217 Heart-leaved Tway-blade. *L. cordata.* June.
 Ogden clough, near the great rock, not common.

Iridaceæ.

218 Yellow Flag. *Iris Pseud-acorus.* June.
 Marshy places on the banks of the stream in Luddenden Dean.

219 Spring Crocus. *Crocus vernus.* March.
 In a meadow near Ripponden, rare.

Amaryllidaceæ.

220 Poetic narcissus. *Narcissus poeticus.* June.
 Near Ogden, rare.

221 Daffodil. *N. Pseudo-narcissus.* April.
 Pastures on the banks of the stream below Hipperholme.
 Upper Shibden, rather sparingly.

222 Snowdrop. *Galanthus nivalis.* February.
 Cromwell wood in Southowram, rare.

Asparagaceæ.

223 Lily of the Valley. *Convallaria majalis.* May.
 Woodside plantation in Old Lane, rare.

Liliaceæ.

224 Ramsons. *Allium ursinum.* May.
 Damp woods and hedges in Shibden, common.

225 English Blue-bell. *Endymion nutans.* May.
 Woods in Shibden, abundant.

Juncaceæ

226 Bog Asphodel. *Narthecium ossifragum.* June.
 Turfy Bogs on Norland moor.

227 Soft Rush. *Juncus effusus.* July.
 Wet pastures and boggy places, Shibden.

228 Common Rush. *J. conglomeratus.* July.
 Moist situations in pastures, and by roadsides, Ogden.

229 Great Wood Rush. *Luzula Sylvatica.* May.
 Shady woods in Shibden.

230 Hairy Wood-rush. *L. pilosa.* May.
 Woods and meadows in Shibden.

231 Field Rush. *L. campestris.*
 Pastures and dry places in Shibden.

Alismaceæ.

232 Water Plantain. *Alisma Plantago.* June.
 In the canal below the Wharf; and in the dam at Lee bridge.

233 Arrowhead. *Sagittaria Sagittifolia.* July.
 In the canal near Salterhebble.

Araceæ.

234 Cuckoo pint. *Arum Maculatum.* May.
 Hedge banks and thickets, Shibden

Lemnaceæ.

235 Duckweed. *Lemna minor.* June.
 On stagnant water in Shibden.

Potamogetonaceæ.

236 Pondweed. *Potamogeton natans.* June.
 Ponds, ditches and slow streams, Ogden Cloughs.

Cyperaceæ.

237 Many-stalked Spike Rush. *Eleocharis multicaulis.* July.
 Ogden moors.

238 Hare's-tail Cotton-grass. *Eriophorum vaginatum.* June.
Ogden moors.

239 Common Cotton-grass. *E. Angustifolium* June.
Ogden moors.

240 Flea Carex. *Carex pulicaris.* June.
Bogs on Ogden moor.

241 Little prickly Sedge. *C. stellulata.* May.
Boggy places in Shibden.

242 Oval-spiked Carex, *C. ovalis.* June.
In marshes and wet pastures, Ogden and Shibden.

243 Pink-leaved Carex. *C. panicea.* June.
In meadows and moist pastures, Ogden.

244 Vernal Sedge. *C. præcox.* April.
Dry hilly places in Shibden.

245 Round-headed Sedge. *C. pilulifera.* May.
Wet heathy places in Shibden.

246 Yellow Sedge. *C. flava.* May.
Wet places in Shibden.

247 Green Ribbed Sedge. *C. binervis.* June.
Dry heaths at Ogden.

248 Smooth-stalked Beaked Carex. *C. lœvigata.* June.
Marshes and wet thickets at Ogden Clough.

249 Pendulous Wood Sedge. *C. sylvatica.* May.
Damp woods in Shibden.

Gramineæ.

250 Canary-grass. *Phalaris canariensis.* July.
In a field near Akroydon.

251 Reed-grass. *P. arundinaceæ.* June.
Margin of the Dam at Salterlee in Shibden

252 Vernal-grass. *Anthoxanthum odoratum.* May.
Pastures in Shibden, very common.

253 Timothy-grass, or Cat's-tail-grass. *Phleum pratense.* June.
Meadows and pastures in Shibden, not common.

254 Fox-tail-grass. *Alopecurus pratensis.* May.
Meadows and pastures in Shibden.

255 Floating Fox-tail-grass. *A. geniculatus.* June.
Near streams and wet places in Shibden.

256 Mat-grass. *Nardus stricta.* July.
Heathy places at Upper Shibden, and at Ogden.

257 Soft-grass. *Holcus lanatus.* July.
Meadows and pastures below Salterlee in Shibden.

258 Creeping Soft grass. *H. Mollis.* July.
Thickets and meadows near Salterlee in Shibden.

259 Hair-grass. *Aira cespitosa.* July.
Meadows, thickets, and hilly pastures, Shibden.

260 Wavy Hair-grass. *A. flexuosa.* July.
Heathy places at Upper Shibden.

261 Early Hair-grass. *A. præcox.* May.
Dry and sandy places, Ogden.

262 Yellow Oat-grass. *Trisetum flavescens.* July.
Meadows and pastures, Shibden.

263 Oat-grass. *Arrhenatherum avenaceum.* June.
Hedges and pastures, Shibden.
Var:—*A. bulbosum*—Hedges and thickets, common.

264 Wood Melic-grass. *Melica uniflora.* June.
Woods in Shibden, very common.

265 *Molinia cœrulea.* July.
Several places at North Dean and Norland.

266 Annual Meadow-grass. *Poa annua.* May.
Roadsides and waste places, Shibden, very common.

267 Roughish Meadow-grass. *P. trivialis.* June.
Moist and shady places in Shibden.

268 Smooth-stalked Meadow-grass. *P. pratensis.* June.
Meadows and pastures in Shibden.

269 Reedy Sweet-grass. *Glyceria aquatica.* July
Plentiful in the Canal above Salterhebble.

270 Floating Sweet-grass. *G. fluitans.* June.
Borders of the Dam at Salterlee in Shibden.

271 Quaking-grass. *Briza media.* June.
Old fields near the Hazelhurst at Upper Shibden; near Hipperholme,
and about High Road Well above Halifax.

272 Dog's-tail-grass. *Cynosurus cristatus* June.
Meadows and pastures in Shibden, common.

273 Cock's-foot-grass. *Dactylis glomerata.* June.
Meadows and pastures in Shibden, common.

274 Sheep's Fescue-grass. *Festuca ovina*. June.
 Dry hilly pastures at Shibden and Ogden

275 Tall Fescue-grass. *F. gigantea*. July.
 Woods and thickets in Shibden.

276 Meadow Fescue-grass. *F. pratensis*. June.
 In rather moist meadows and pastures, Shibden.

277 Spiked Fescue-grass. *F. loliacea*. June.
 In rich moist meadows and pastures, Shibden.

278 Hairy Wood Brome-grass. *Bromus asper*. July.
 Moist woods and hedges in Shibden.

279 Lop-grass. *Serrafalcus mollis*. May.
 In meadows, pastures and waste ground, Shibden.

280 Slender False Brome-grass. *Brachypodium sylvaticum*. July.
 Woods and hedges in Shibden.

281 Fibrous-rooted Wheat-grass. *Triticum caninum*. July.
 Waste and cultivated land at Woodlands, near Akroydon.

282 Creeping Wheat-grass, }
 or }
 Couch-grass. } *T. repens*. June.
 Waste and cultivated land at Woodlands, near Akroydon.

283 Perennial Rye-grass. *Lolium perenne*. June.
 Cultivated fields in Shibden.

284 Bearded Rye-grass. *L. multiflorum*, June.
 Holywell green, near Elland.

Equisetaceæ.

285 Corn Horse-tail. *Equisetum arvense*. April.
 Damp meadows in Shibden.

286 Smooth naked Horsetail. *E. linosum*. April.
 Marshy places in Shibden.

Filices.

287 Common Polypody. *Polypodium vulgare*. August.
 Shady banks, walls and old trees, Shibden, Luddenden, and the
 valleys near Hebden Bridge, common.

288 Pale Mountain Polypody. *P. Phegopteris*. July.
 Stony places in damp woods, upper Shibden, common.

289 Tender Three-branched Polypody. *P. Dryopteris*. June.
 On old walls, and about the roots of trees; Shibden and North
 Dean, common.

290 Sweet Mountain Fern. *Lastrea Oreopteris*. July.
Mountainous and heathy places at upper Shibden and Ogden,
common.

291 Male Fern. *L. Filix-mas*. June.
Hedge banks and woods in Shibden, very common throughout the
parish.

292 Broad Shield-fern. *L. dilatata*. August.
Banks, and particularly in woods, common in Shibden, and
throughout the parish.

293 Common Prickly Shield-fern. *Polystichum aculeatum*. July.
Sheltered woods and hedge banks; very fine in a deep clough at
Upper Shibden.

294 Angular-leaved Shield-fern. *P. Angulare*. July.
In the same locality as *P. aculeatum*, where many interesting
forms may be met with.

295 Close-leaved Prickly Shield-fern. *P. lobatum*. July.
Shady hedge-banks at Upper Shibden.

296 Bladder-fern. *Cystopteris fragilis*. July.
Wet Rocks and walls, very sparingly on the left side of one of
the streams in Upper Shibden.

297 Lady-fern. *Athyrium Filix fœmina*. June.
Wet shady woods and banks in Shibden, common.

298 Black Spleenwort. *Asplenium Adiantum-nigrum*. June.
Old wall on the Burnley road, near Halifax, very sparingly.

299 Green spleenwort. *A. viride*. June.
Near the great rock in Ogden clough, one plant was observed in 1866.

300 Wall Rue. *A. Ruta-muraria*. May.
Rocks and old walls; on the bridge at Elland.

301 Hart's tongue. *Scolopendrium vulgare*. July.
Damp shady places, occurs at Upper Shibden, rather sparingly, and
very fine on a Scar at Mytholm, near Hipperholme.

302 Northern Hard-fern. *Blechnum boreale*. July.
Stony and heathy places in Shibden, and very abundant in the
Ogden cloughs.

303 Common Brake. *Pteris aquilina*. July.
Woods and heaths, Shibden and Ogden, common.

304 Moon-wort. *Botrychium lunaria*. June.
Hilly pastures at Upper Shibden, not common.

305 Adder's tongue. *Ophioglossum vulgatum.* May.

In moist meadows and pastures in Shibden, abundant.

In concluding the foregoing list of Plants, the writer acknowledges with pleasure his obligations to Mr. Jas. Whiteley, of Shibden Head, and to Mr. B. Barber, of Woodside Lodge, for the information which they have kindly rendered concerning some of the localities mentioned. It is to be hoped that this list will be followed by a series which shall lay before the public the great amount of Botanical riches to be found in our parish. JNO. WALKER, AKROXDON.

Excursion to Malham, Kilnsey, and Bolton Woods.

On the 8th of June, the Members of the Haley Hill Literary and Scientific Society had an Excursion to the Craven district; the party started from Halifax at 8-28 a.m., for Bradford, and thence by the Midland Railway to Bell Busk, where we arrived a little after 11 o'clock, and at once started on our way to Malham.

The walk through the fields was most delightful, and we were detained some time in collecting specimens, amongst which were in Botany: *Geum urbanum*—Common avens. *Convallaria polygonatum*,—Solomon's Seal. *Arum maculatum*—Common arum. *Malva sylvestris*—Common Mallow. *Listera ovata*—Tway blade. *Scrophularia nodosa*—Figwort. *Angelica sylvestris*—Wood Angelica. *Caltha palustris*—Common Marsh marigold, together with a host of others more commonly met with.

Arriving at Kirby Malham, we called at the Inn for refreshment; the sky previously so clear and promising, became overcast, and large drops of rain foretold a heavy shower. Many hopes were expressed that it would be of short duration, and although the roads were fast becoming wet and sloppy, our ardour was not damped, and after an hour's good walking we were comfortably seated under the overhanging rocks of Malham Cove. A short rest and a unanimous appeal to the "fragrant weed" for consolation, and we commenced to explore the vicinity; amongst others we obtained:—*Paris quadrifolia*—Herb paris. *Geum rivale*—Water Avens. *Orchis Maculata*—Spotted Orchis. *Pinguicula vulgaris*—Butterwort. *Thalictrum minus*—Lesser Meadow rue. *Potentilla verna*—Spring cinquefoil. *Geranium sanguinum*—Cranes bill. *Saxifraga hypnoides*.—Mossy saxifrage. *Saxifraga granulata*—White meadow Saxifrage. *Saxifraga tridactylites*—Rue-leaved Saxifrage. *Aethusa Cynapium*—Fool's parsley.

The rain continued to fall heavily, but still indulging in the hope of a fine day, we visited "Janets Cave," and were amply repaid by the sight of the beautiful waterfall. We then pressed on to "Gordale Scar"*, by which time the storm of wind and rain had increased fourfold. Under the shadow of the immense limestone cliff, we paid our homage to the awfully grand spectacle before us. The clouds of thick mists hung over the tops of the crags, whilst here and there a lurid light struggled to pierce through; and although our facetious friend was rarely silent, it was notable that even he found it impossible to joke in the presence of such terrible grandeur. The next place to visit was "Malham Tarn," and we boldly made the attempt to scale the terror-striking gorge before us. Those only, who like ourselves have attempted the task in a storm, can form any idea of the difficulties that beset us; it was no easy matter to obtain foot-hold, and even then the wind seemed determined to hurl us to destruction. At last we stood panting on the summit, and after mutual congratulations, we struck out in the direction of the Tarn. Here fresh troubles awaited us; the mists gathered more and more densely, until our view was restricted to a circle, some six yards in diameter. At this stage it was thought advisable to consult our maps, but as we had neglected to take a compass they were useless; we therefore waded along in hopes of finding something to direct us; vain hope! We were convinced that we had gone three times the distance requisite to reach our destination, but yet no sign appeared. The mist grew still thicker, the rain fell still heavier, and the wind howled about us until it was a difficult matter to hold converse. In this plight we held a short consultation, and deemed it best to remain stationary lest some unforeseen danger might be in store. Could our friends have seen us at this time, crouched under the all-but useless umbrellas, no doubt they would have enjoyed the sight and laughed heartily, but we failed to see the fun of it. At length the mist began to roll away, and again starting, we shortly succeeded in reaching the precise spot from which we set out. At this time the rain ceased, the wind had exhausted its fury and went sighing away, the heavy clouds rolled off as if ashamed of the part they had played, and the sun shone out with renewed brilliancy. The walk over the moors to Kilnsey was as beautiful and agreeable as the most fastidious could desire. We reached the "Tennants Arms" a few minutes

* N.B. - In climbing Gordale, we found a nest of the Dipper—*Cinclus aquaticus*, containing young.

before six in the evening, with wet clothes, tired bones, and empty stomachs; and the kindness with which we were received and all our wants attended to, will long be a pleasurable remembrance. After a good supper, a welcome night's repose and a hearty breakfast, we set out to scale Kilnsey Crag. The scenery here was of the most lovely kind; unfortunately the wind was high, consequently, entomological specimens were not easily met with. We obtained a rather local insect, which is however abundant on the top of the crag, Scarce Purple and Gold—*Pyrausta Ostrinalis*, also a specimen or two of the Green Carpet—*Larentia miaria*. *Ranunculus aquatilis*—Water Crow foot. *Primula farinosa*—Bird's Eye primrose. *Asperula odorata*—Sweet woodruff. *Melampyrum sylvaticum*—Wood Cow wheat. *Viola lutea*—Yellow Mountain violet. *Galium saxatile*—Smooth Heath bedstraw. Sedge warbler.—*Sylvia phragmitis*—Black-cap warbler. *S. atricapilla*. Garden warbler—*S. hortensis*. Wood wren—*S. sibilatrix*. Pied wagtail. *Motacilla yarrellii*. Tree pipet—*Anthus arboreus*. Sand Martin—*Hirundo riparia*. Common sandpiper—*Totanus hypoleucus*. One nest of the Pied Wagtail contained the unusual number of ten eggs. We had never before either seen, or heard of one containing above seven.

From Kilnsey we walked down Wharfedale through Burnsall. At Gill Beck we went to view the waterfall. After satisfying ourselves here, we walked to Barden Tower, and spent a pleasant half-hour amid the ruins. The following is a copy of the inscription cut in the slab over one of the doorways:—

“This Bardon Tower was repayed by the Ladie Anne Clifford, Countesse Dowager of Pembroke, Dorsett and Montgomery, Baronesse Clifford, Westmorland and Vessie, Ladie of the Honor of Skipton in Craven, and High Sheriffesse by inheritance of the Countie of Westmorland in the yr. 1658 and 1659, after it had layne ruinous ever since about 1589, when her mother then lay in itt and was great with child with her, till now that it was repayed by the said Lady.—Isa. chap. 58, ver. 12—God's name be praised.”

Here we found a nest of the Barn Owl with young ones, *Strix flammea*. We had also the pleasure of seeing (for the first time in our lives) the Kingfisher in its native haunts, and perhaps might, had time permitted, have succeeded in finding a nest.

We then entered Bolton Woods where we spent the day. Here

is a rich field for the Botanist, but time did not allow of us taking much advantage of it, we observed the following insects:—*Caberia pusaria*—The White wave. *Emmelesia Albulata*—Grass rivulet. *Melanippe Biriviata*—Common carpet. *M. Montanata*—Silver Ground carpet. In Botany: *Lastrea dilatata*—Broad Prickley Buckler fern. *Scolopendrium vulgare*—Hartstongue. *Asplenium viride*—Green spleenwort. *Asplenium trichomanes*—Common Maiden Hair spleenwort. *Asplenium Ruta-muraria*—Wall rue spleenwort. *Blechnum boreale*—Northern Hard Fern. *Listera ovata*—Tway blade. *Potentilla tormentilla*—Tormentil. *Thlaspi occitanum*—Alpine pennycress. *Cystopteris fragilis*—Brittle Bladder fern. *Lathyrus macrorrhizus*—Tuberous pea. *Polypodium phegopteris*—Mountain polypody. *Linaria cymbalaria*—Pedlar's basket. *Allium ursinum*—Broad-leaved garlick. *Convallaria majalis*—Lily of the valley. *Cheiranthus Cheiri*—Wall flower. *Lathrea squamaria*—Toothwort.

We arrived at night at Addingham, where, after most hospitable fare we sought and obtained the needful rest. The 10th was again devoted to Bolton Woods, but no noteworthy results were obtained. We were excessively pained to notice the havoc committed by a party of pleasure seekers from Bradford; their only delight seemed to be derived from the destruction of as many beauties of the place as possible. Amongst other acts, we noticed four men swinging on the bough of a venerable Thorn, until they succeeded in breaking it off; which branch had doubtless afforded a welcome shade to visitors for upwards of a century. Remonstrance is in vain with such barbarians, and it is scarcely to be wondered at, that owners of parks so often refuse the public admission.

On the 11th we began our homeward journey over Romald's moor, through Bingley and Wilsden, and arrived home in good health and spirits with bodies and minds strengthened and the pleasant assurance that we had nothing to regret.

On Saturday the 22nd, the Society held their first Pic-nic, when twenty-nine of the members and friends availed themselves of the opportunity of spending a few hours in the vale of Shibden. The table, or rather the table-cloths were spread on the green sward in the wood behind Scout Hall, (by the kind permission of Mr. Freeman to whom the Society is much indebted.) After a substantial and very varied repast, the time

flew quickly by with music, dancing, and a few old English games. All returned home highly gratified, and anxiously looking forward to the next opportunity when a similar treat will be afforded.

Agnes of High Sunderland.

INTRODUCTION.

Old walls!—shattered, decay'd, and stained,
 How much you teach ;—
 Each little feature that has here remained
 Would seem to preach
 Of fleeting grandeur,—blighted hopes ;—resistless Time
 Is crumbling into dust thy boasted prime.

Yet does he do it with a softened touch,
 And leaves a charm
 E'en in the wreck, he makes, he spareth much
 To soothe and calm ;—
 Flinging as 'twere a veil of years to screen
 Thy beauties,—beauties still, tho' dimly seen.

But not to years, or elemental rage
 Alone is due
 Thy forlorn aspect ;—these have dimmed thy page,
 But such we view
 In thee, as snowy locks when seen on aged head,
 That o'er the wearer glams of honour shed.

But sighs will heave the breast, and tears
 Will flow apace,
 When fancy takes her flight to former years
 And fills the place
 With images of things that once were here,
 The maiden coy,—the lusty cavalier.

Where now pestiferous ordure heaps are seen
 Exposed and bare,
 Ceaselessly pouring forth their putrid steam
 To taint the air,
 And stagnant pools, and ruined fences lie,
 Reeking in filth,—offensive to the eye ;

Here once sweet flowers in their gayest dress
 Did court the breeze,
 Breathing their perfumes in mute thankfulness.—
 But where are these ?—

Alas ! All trodden down beneath the heel of trade,
 Whose boast,—“ a once sweet paradise a desert made.”

Thy noble barn with its bewild'ring beams
 On which we gaze
 With heads uncovered,—revelling in dreams
 Of former days,—

When rose the harvest-hymn from grateful swain
 And hallow'd with its tones, the hoard of grain.

Where fiery chargers once have spurned the ground
 Snorting in pride,
 The solitary gin-horse walks his round
 With limping stride ;

And where the hooded falcon trimmed his beak,
 The loathsome beetles for subsistence seek.

Thy statues hold to view their battered forms
 As tho' they wept,—
 Powerless to brave th' Iconoclastic storms
 Which o'er them swept,
 Leaving them there as monuments to tell
 The r spoiler's shame.—Old ruin, fare thee well.

But can I wish farewell. and thus depart,
 Leaving no trace
 To tell the deep, sad grief that 'whelms my heart
 For thy disgrace ?—

But yet, not thine, 'tis theirs who in neglect
 Stand carele-s by and see thy beauties wrecked.

I cannot rear thy walls anew,—nor call
 The spirits back

That once have tripped it in thy festive hall,—
 Such power I lack ;—
 But will I, tho' with trembling hand essay
 To let my fancy o'er thy mem'ry play.

Fit home in which the muse might tune her lay,
 And carol sweet
 From dewy evening, till the dawning day
 Sought the retreat
 Where steep'd in sweet elysium reverie,
 Imagination dwelt in dreams of thee.

Thus then I dare around thy bade to throw
 This simple wreath,—
 As on the grave are planted flowers to show,
 Those loved in death :
 And thus like them, this wreath I fling shall be.
 My humble tribute to thy memory.

Agnes.

Once sat within that ancient hall,
 'Round which the firs and poplars tall,
 Like spectres waved amid the gloom,
 Screening pure daylight from the room
 Was Agnes owner of them all.

Her garments were of sable hue,
 Her face was half concealed from view,
 A cross of jet hung on her breast
 Which oft for consolation prest,
 Shone as if deck'd with dew.

But oh ! it was not dew so sweet,
 As that which thirsty flowers greet,
 When weary of the scorching sun
 Which cloudless through the day has run
 He sinks to his retreat ;—

No,—they were tears of anguish,
 Wrung ;
 From clouds of misery, they sprung,
 Welling within her eye of night,
 Flow'd down her cheeks so soft and white,
 Staining the rose so young.

But why should she thus pine away ?
 Sigh through the night, weep all the day ?
 Why should this silence and the gloom
 Transform the mansion to a tomb,
 Where all had once been gay ?

For cheering sound of music's strain,
 You long might listen but in vain,—
 And silence stifled till it spake,

Would make the sternest heart to
quake
And thrill the throbbing brain.—

But she had breathed a dreadful vow
And called on all above,—below,—
That should she break the oath she
made,
To pour their vengeance on her head
Her soul to overthrow.

Once happiest of the happy throng
That bounded light, the bowers
among,—
No laugh more silv'ry than her own,
No face with smiles more 'witching
shone,
No heart with love more strong.

Wealth, beauty, and a mind at ease,
What more can mortal wish than
these?
When every smile could make a friend
Whose joy would on her look depend,
Whose life was spent to please?

Servants of every degree
Were proud to bend the humble knee,
Rewarded by her cheering smile
For nights of watching, days of toil,—
Sure none more bless'd than she.

Still blest and happy had she been,
Still reigning absolutely queen,
Had not young love his javelin cast,
Sure aimed and barbed he left it fast
Her heaving breasts between.

Those eyes which sparkled o'er a
flower,
Now anxious watched the tardy hour
And charms of wooded nook and dell,
Unnoticed left their tales to tell,
Saving one little bower.

And there as daylight sank to sleep,
And stars above began to peep,
In that soul-stirring hour of eve
When western clouds their curtains
weave

Around the mountain steep;—

Then like some fairy phantom flitting,
She'd haste to find her loved one
sitting.
Lock'd in his ardent, strong embrace,
Gazing upon his anxious face,
For love's reward entreating.

And if the rising moon display'd
Her burnished face, and lit the shade,
Throwing her mild intrusive beam
Within that sacred nook, 'twould seem
As tho' she kissed the maid.

The faint heaved sigh and whispered
word,
Sweeter to love than minstrel's chord
Were all the sounds that smote the
ear
Unless some little bird in fear
The heavy foliage stirred —

True happiness, if such there be,
Is found when hearts from doubts
are free,
When trusting all is as it seems,
And passing life in lovers' dreams,
The light-winged moments flee.

Thus happy she, and happier still
Was he who caused the first-fond
thrill,
That woke her innocent desires,
And fanned to life the latent fires,
Which burn to bless or kill.

And when was maiden's will so strong
As to resist the winning tongue.
When bounteous nature has designed
To deck the casket of the mind,
In form so fair and young?

For far and near in vain to find
A nobler form of human kind
Than that which young Sir Aubery
wore ;—
And many a heart had felt of yore,
The pang he left behind.

And oh ! oft o'er that lovely form,
He bow'd and breathed his wishes
warm,
Whilst she contented drank the tone
Of voice melodious as her own,
Scarce less its power to charm.

Or cheek to cheek in love's caress,
Vowing eternal steadfastness,
Eye meeting eye in loving look
Which sparkled in that leafy nook,
And tress entwined with tress.

Sure Eden in its sunniest time,
Furnished no joys from purer mine,
Than when from bosoms closely
strained
Rise loving murmurs, unconstrained,
And hearts to hearts incline.

And of such joys oft, oft, they fed,
And parting words reluctant said,
To leave him thus, her early grief
In hopes of meeting found relief,—
All other longings dead.

For as each star that's set on high,
Although still present in the sky,
No more is seen when morning's sun
Shines brighter than the brightest
one,
All paled when he was nigh,

Both blest with wealth, in lands and
gold,
Two youthful spirits, uncontrolled,
Both in their matchless beauty shone,
Lovelier maid or youth came none,
Within that mansion old.

Each hope and thought tho' unexpressed.

Appeared a tenant of each breast,
As tho' their love had glowed so
strong,
Their hearts had blended into one ;
Each in the other blest.

But love, proverbially blind,
Oft leaves what seems most prized
behind,—
Fickle as the winds that play
Round flowers on a summer's day
Then haste new joys to find.

And sad to tell, alas ! too true,—
Young Aubery's love was fickle too,
For ere the nuptial knot was tied
The last faint spark of love was died
And far away he flew,—

Into another's ear to pour
The vows oft made and broke
before ;—
But purer heart, or fairer hand,
Than Agnes' of High Sunderland,—
None could in love implore.

But who could picture half the woe
Which Agnes felt beneath the blow,
When waking to her sense of wrong,
She found how false, alas, how long,
He had deceived her so.

Many in sympathising strain,
Besought her to look up again,
Nor let his loss a trouble prove,
But seek one worthier of her love ;
Yet all besought in vain.

And in a voice which harshly rung
From one so lovely and so young,
Clasping her hands upon her brow,
She uttered this most awful vow,
That silenced every tongue.

(TO BE CONTINUED.)

The Tow.

"No more, so help me gracious Heaven
Will I so long as life is given,
See any, save of woman kind,
And if I should, my eyeball's blind,
Or let them out be riven.

And if I ever long for sound
Of voice from man, my ears confound ;
Or if my tongue regretful breathe,
Sir Aubrey's name, may dumbness,
weave
Its silent fitters round.

Away from all once fondly prized,
Hating those joys which once enticed,
In solitude henceforth to dwell,
More sacred than the hermit's cell,
To weep o'er love despised."

Deep into every bosom there,
Sank that sad wailing of despair,
As on her knees she loudly cried
That God would lend His aid to guide,
And grant her ardent prayer.

Oh ! who can tell what forces lie,
Beneath the smile, the beaming eye ?
Or know the energy that dwells
Within the breast which loving swells
With the imprisoned sigh ?

But as some verdant mountain side,
May hold within the burning tide
Of larva, which when roused can
make
The solid earth in fear to quake :
Thus sleeps a maiden's pride.

And thus when roused with grievous
wring
It bursts forth in a current strong,
O'erwhelming the once yielding mind
Leaves but few verdant spots behind
For love to dwell among.

I oft have watched two clouds float
high,
Beneath the azure canopy ;—
Wafted along by gentle gales,
Whilst each to each still nearer sails,
And mingle in the sky.

Then gliding on in one white heap,
The silver tinted vapours sleep,
Till scattered by some ruthless blast
In feathery fragments have been cast,
To melt in anguish deep.

Thus loving hearts together cling,
Through life's sweet ways meander-
ing,—
Till crossed by doubts, or forced apart,
Each cherished wish within the heart,
Dissolves in sorrowing.

A youth dwelt in the vale hard by
Who oft had cast a wistful eye
On Agnes, when her fairy feet
Had passed his humble, lone retreat,
And oft he heaved a sigh ;—

And felt inclined to curse the fate
That placed him in such lowly state,
Whilst in his breast howe'er he turned
Love and ambition fiercely burned,
Yet left disconsolate.

And many a wild and stormy night
 Long did he watch to catch the sight
 Of her dim shadow, as it passed
 The trelliced pane, until at last
 Died out each ray of light.

Or on his humble bed he lay—
 Sighing the weary night away,—
 Or waking from tormenting dreams,
 When morning shed its cheering
 beams,
 Making all nature gay ;—

But to his over-burdened heart,
 No cheering ray could it impart,
 And o'er his toil for daily bread,
 Many the tears he oft-times shed,
 Such as unbidden start

To eyes that scorn the drops that
 show,
 A heart unhardened lies below
 The strong firm front, reared as a
 fence
 To hide the bosom's innocence,
 Where virtue's blossom's grow.

'Tis sad to think man's pride should be
 Based ever on hypocrisy,
 That tears are symbols of the weak,
 Which ne'er should mar the manly
 cheek,
 To tell of misery.

They suffer most who scorn to show
 That they have felt the cruel blow

Of careless word, or cold neglect,
 Yet sternly hold the head erect,
 Nor let the tear drops flow ;

But could the eye unveil that breast,
 That seems as tho' no care opprest,
 And view past hopes drowned deep
 in tears,
 And present hopes hemmed in with
 -fears,
 Few would be counted blest.

Thus he forced down with iron will,
 The hopes that would his bosom fill,
 And boldly strove, yet strove, alas !
 In vain to bid the longings pass
 Which thronged within him still.

Oft here the smiling day was born,
 Like some young pilgrim all forlorn,
 Over the hills his way would tend,
 Seeking in solitude a friend,
 With whom his griefs to mourn.

But when he heard the woeful tale
 Of Agnes' loss, his lips grew pale,
 And with a cry of deep despair
 That sank in every bosom there
 He fled adown the vale.

No more upon those mountains green
 That love-lorn shepherd youth was
 seen,
 His hut fell crumbling in decay,
 His flock untended roamed away,
 He vanished as a dream.

Soon lonely and sad grew that once joyous hall,
 And gloomily waved the old poplars so tall,
 And the flow'rs that bloomed neat the fir's dismal shade,
 Half closed their bright eyes, lest the beauty they made
 When blooming so cheerily,—

Should disturb the solemnity reigning around,
 For the song-birds had fled, and rarely a sound,
 Save the croaking of frog, or the rustle of snake,
 Which from undisturbed slumbers began to awake,
 Smote the ear drearily.

And within those grey walls the recluse dwelt alone,
 In a silent apartment where sun never shone,
 No attendants, no friends, saving one stranger maid
 Who to share her distress had successfully pray'd,
 Was allow'd to remain.—

And every hope Agnes had was of Heaven,
 And the maid's every thought to her mistress was given,
 And the sighs that she heaved, were all lost in the tone
 Of the sighs of the maid, which re-echoed her own
 In more sorrowful strain.

And oft when her heart was o'er burdened with grief,
 And she told o'er her beads in vain hopes of relief,
 She would lay her pale face, like a babe seeking rest,—
 On the maid's heaving bosom, where fondly caressed
 She would shed bitter tears.

And would gain some relief from that maiden's embrace,
 And repose from her cares, whilst her angel like face,
 Half drooped like a lily that pines for the beams
 Of the soul-cheering sun with his gladdening gleams,
 To dispel her dark fears.

And the rays of true love, if such rays ever shone,
 Fell o'er her from eyes oft in tears as her own,
 And many a kiss on her marble-like brow
 Fell lightly, as falls the light feathery snow
 From the lips of that maid,—
 And often pale Agnes awoke with a start,
 When the lorn maiden pressed her too close to her heart,
 And a delicate flush o'er her fair features play'd ;
 Whilst she fear'd lest her deep-felt affection betray'd,
 Should give cause to upbraid.

Oh ! rapture distressing, and joy turned to care,
 Is when the heart's secret finds no one to share,
 When knowledge within like a worm at the core
 Disturbs the mind's peace, and embitters the store
 From which joys have sprung ;—

Thus Edith (for such was her name) in distress,
 Held the secret she longed, yet dared not to express,
 And the two in deep sorrow oft blended their tears,
 And in turn each endeavoured to lighten the cares,
 Which around them had clung.

When night spread about them its curtain of gloom,
 And the lamp vainly strove to illumine the room,
 When the owls from without, and the crickets within,
 Made the heart of the timid beat quick at the din ;—
 And a cold shudder passed
 Through each vein, as tho' life's blood had threatened to freeze,
 When the winds have sung dismal wild notes through the trees,
 And the long waving branches have tapped on the pane,
 And the creak has been heard of the old weather vane,
 As it swung in the blast.

Then if time seemed to flag, Edith sat by her side,
 And told her long tales of the spirits that ride
 Through the hours of the night, on their missions of ill,
 And hide from the day in the cliffs of the hill,
 Till her flesh 'gan to creep ;—
 And she dared not to look where the shadows were thrown
 Lest some eye of dark omen should startle her own,
 And the dry leaves that danced in the wind's faintest breath,
 Seemed like whispering sounds, that premonished of death,
 Whilst they scared away sleep.

And yet such a charm o'er those stories was hung,
 Tho' with terror she shook, or with anguish was wrung,
 Still she pressed her again and again to recite,
 These dark deeds, and visions, till far in the night,
 When she sought her lone bed.
 Then Edith would roam through each desolate room,
 Like some spirit which strove to be freed from its doom,
 And beat her sad bosom, and hands wildly clasp,
 Whilst her breath came in starts, and a name she would gasp,
 As of one that was dead.

But morning would find her with features serene,
 But if in her bosom no tempest had been,
 And each word that she spoke in soft accents did prove,
 'Twas not friendship that prompted her actions, 'twas love,—
 And once as they sat Agnes fondly besought her
 To tell her this tale of the wanderer's daughter.

Edith's Story.

High on the top of a huge cliff there stood.—
 Tow'ring above the waters ceaseless roar,
 A lonely castle, frowning o'er the flood,
 As a grim sentinel to guard the shore.—
 Children and maidens shunned its gloomy pile,
 And strong bold men oft tim'rous glances threw,
 No sun upon its towers cast a smile,
 The waves beneath seem'd dyed a deeper blue ;
 Strange tales were told of ghostly spectral throngs
 That o'er its battlements at night were seen,
 And yells and shrieks unknown to human tongues.
 Rent the calm air, whilst ocean all serene
 Lay sleeping 'neath the moon's soft beaming eye :—
 Or when the storm King pluin'd his threatening wing,
 And thundering rode athwart the burdened sky,
 Above the turmoil their fell shouts would ring.—

No other sign of life save when the sun
 Awoke at morn, and o'er the blue expanse
 Chased the thick mist, or scared the shadows dun,
 Which fled affrighted at his fervid glance,
 One might behold a maiden's fragile form,
 Waving as tho' for succour, her long veil—
 And midst the howlings of the wildest storm
 Was heard the tones of that fair creature's wail ;
 And round the castle a wild legend hung,
 Which thus to me an aged minstrel sung.—

O lady if sleep thy bright eyes has forsaken,
 Lend an ear to the sorrowful story I tell,
 And tho' my rude harp by the winds may be shaken,
 It will sigh to the tone in harmonious swell.—
 For oft have I chaunted the lay to the mountain,
 Whilst winds have howl'd past in a rage at the theme,
 And the cascades which sprung from its innermost fountain,
 Have coursed down its side in a tear swelling stream.—

And oft 'neath the window where love's lamp was burning,
 Where eyes bright as stars, have looked forth on the night,

The cool winds faint murmurs the maids sighs returning,
Whilst waves of grief heaved o'er her bosom so white,—
And now to thee, fair one, I come with my story,
To melt thee in pity, or shake thee in fear,
And to cheer the lone heart of the wanderer hoary,
I ask no reward save a sigh or a tear,—

Now friendless, forsaken, once blest with a daughter
Whose beauty outrivalled the bloom of the rose,
Where once I called home, lies afar o'er the water,
Whose music has oft soothed that dear one's repose —
No bird o'er the nest of its young ones did hover
More watchful to guard them from danger and care,
No heart ever beat in the breast of a lover,
So fondly as mine for that daughter so fair;—

From her lips came the souls of sweet violets breathing,
Through portals of pearl amid coral enshrined,
And her wandering locks o'er her bosom enwreathing,
Kept trembling in time to the heart they entwined ;—
O she was a jewel, I prized her too dearly,
I gazed on her form till all hope centred there,
And still tho' I weep my heart loves her sincerely,
But alas! what is love if it feeds on despair.—

No miser more jealously guarded his treasure,
Or screened it more closely from eyes of the world,
Or gloated more selfishly over his pleasure,
Than I as Time's touches her beauties unfurled.—
High on the rocks which disdaining the anger
Of waves that lay baffled and raging in foam,
I reared a huge castle to shield her from danger,
Where none save the sea-birds had dared to make home.

And high in its uppermost turret I placed her,
From which she oft gazed o'er the waters expanse,
And the cool breath of ocean has softly embraced her,
As if in return for her sweet loving glance.
And many the hours her head has laid nestling,
On my bosom that burned with its love and its pride,
Nor knew she the forces within that were wrestling,
As she saw but the father she loved at her side.—

One eve the waves lay as though weary of tumbling,
No breeze roused a ripple to wake them from sleep,

And the far-distant tones of deep thunder came rumbling,
 And clouds 'gan to rise from the edge of the deep.—
 Sternly and slowly they spread their dark pinions,
 Till all was o'ershadowed and dim with their frown.
 When the lightning's blue flash, flew athwart their dominions,
 And rain in a torrent came hurrying down.—

The waves then like huge beasts aroused from their slumber
 Shook on high their foam crested manes in disdain,
 Now meeting in fury,—now breaking asunder,—
 Whilst the winds howled and roared as in glee at their pain.—
 Clear through the darkness, the roaring, the thunder,
 A shrill ringing sound from an ill-fated bark,
 Filled the heart of the maiden with pity and wonder,
 And her eyes vainly strove to pierce through the dark.—

Nearer and nearer that dread signal sounded,
 But succour alas ! to expect was in vain,
 And the poor helpless souls by the danger surrounded,
 Must at last find a home 'neath the boisterous main.
 Hark, to that crash,— and that shriek of despairing,—
 No more does that signal ring out through the roar ;
 And still round the rocks the fierce waves are tearing,
 And whitened with anger rush wild on the shore.

Down in the whirling wave,
 Into the seething deep,
 Sank the resigned brave,
 Whilst skies for pity weep ;
 And the wild wind wailed
 And sang the funeral dirge
 Of the poor souls who sailed
 Out in that gallant barge.

They knew their end was near
 Long had they braved the storm ;
 Courage resigned to fear,
 Hopeless of aid,—forlorn,
 Save God's, no help was there.

Tossed like a withered leaf
 High on the waves that hiss,—
 And in an instant brief
 Plunged in the deep abyss,
 Whilst curling crests hung o'er
 Like a vast precipice.—

Discordant thunders laughed,
 Like fiends exultingly,—
 Fierce lightning's vivid shaft
 Revealed their misery,
 Showing both fore and aft,
 One endless foaming sea.

Groaning like one in pain,
 (Whilst 'gainst its sullen sides
 Remorseless beats the main,)
 The vessel helpless rides,
 Screening its living freight
 One moment from their fate.

Grim death stood at the helm,
 Cheering the angry wave,
 Which strove to overwhelm,
 And furnish them a grave,
 And laughed to think that they
 So soon must be his prey.—

Short prayers breathed soft and low
 Arose amid the roar,
 And tears repentant flow
 Where such ne'er flowed before,
 And hearts erst adamant,
 At last ! at last repent.

Some few had gained the boat
 And leave the vessel's side,
 On unknown waters float,
 Powerless their bark to guide,
 And savage waves in joy
 Play with it as a toy.

One seat is still reserved,—
 The Captain's :—will he go ?
 With brave heart strongly nerved.

He answers firmly, "No !
 God speed you o'er the seas
 I will remain with these."

Farewell to friends at home,
 Farewell ye meet no more,
 Beneath that azure dome,
 Where ye have met before,
 Deep in the angry waters
 Sink parents, sons, and daughters.

One fiercer whistling blast.
 One more determined wave,
 The fated die is cast.
 Heaven's help alone can save :
 One mingled shriek and groan.
 And death has claimed his own.

The sighs they were deep, and the tears they were many,
 Which in sympathy fell o'er their sorrowful doom,
 As would fall from an angel, if angels shed any
 O'er pilgrims whose goal is at last but the tomb,—
 Restlessly rolled h'r fair head on the pillow,
 But sleep scared by so row had fled from her eyes,
 And she heard but the murmuring voice of the billow,
 And saw but the lightning that flashed through the skies —
 Thus was she laid when the shill turn gave warning,
 That one from without needed shelter or food,
 And she rushed through the corridors, dim in the dawning,
 Nor paused till she came to the spot where he stood.—
 Slowly the ponderous gate was thrown open,
 And a youth wet and weary stood shivering there,
 And his thinly clad form bore full many a token.
 Of his struggles for life with the waves in despair —
 Softly she laid her white hand on his shoulder,
 And led him half stupid with cold to a bed,
 And he as she prattled and fondled grew bolder,
 And gazed on the angel that hung o'er his head —
 No word passed his lips, but the coverlet heaving
 Betray'd the strong feeling at work in his breast,
 And the deep long drawn sighs, his full bosom relieving,
 Ceased not to subside when his eyes closed in rest,—
 Thus he lay sleeping, whilst she like a spirit

Moved softly; or breathlessly bent o'er his form;
 And she sighed in return, tho' he did not hear it,
 And his cold brow was bathed with her tear-drops so warm.
 Gently she put back the curls from his forehead,
 As he lay in that slumber so welcome and deep,
 And his lips mutely moved as tho' he ador'd
 The angel that watched and that wept o'er his sleep,
 She tended him lovingly as tho' a brother,
 Until his eyes slowly uncurtained, looked out,
 Then with eloquent glances they gazed at each other,
 Both speechless in wonder,—embarrassed with doubt
 And when the choice viands and wine had refreshed him,
 He told o'er the perils and dangers just passed,
 And in tones sympathetic the maiden addressed him
 So sweetly he feared the fond dream could not last.—
 Vainly men boast of the tongue's subtle power,
 But eyes speak—tho' dumbly, more eloquent still,
 And the two as they sat and talked hour after hour,
 Looked long looks of love such as bosoms can fill
 With a longing so strong, yet so strange that it seems
 A pleasure uncertain, like joys met in dreams.
 Hours passed, and unconsciously nearer and nearer,
 They drew each to each, and in soft undertone,
 They whispering spake,—as tho' each sound grew dearer,
 But what they spake ears never heard, save their own.
 Her fair form his strong arm slowly, but surely
 Encircled,—until her bright ringlets of gold
 Lay strewn o'er his breast, while her hand lay demurely,
 And strove not to gain a release from his hold.—
 Love he was speaking, and love she was dreaming,
 But she did not, (tho' loth) she dared not consent
 And like glittering dew from a violet gleaming,
 Fell tears from her eyes but she did not relent.
 Her love for her father,—her feelings of duty,
 Refrained her from words, tho' her heart had approved
 And vainly he dwelt on the theme of her beauty,
 She heard, and she wept,—yet she feared, tho' she loved.

Why did nature give thee eyes
 Bright and dazzling as the sun,
 Clothe thy cheeks in roseate dyes,
 If thy charms we ought to shun ?

Why in heavenly beauty dress,
 Mortal forms on earth to rove,
 If our hopes we must repress,
 Stifling all our thoughts of love ?
 Can thy gently heaving breast
 An unfeeling heart contain ?
 Must I languish thus unblest,
 Nursing love's devouring pain ?
 Speak one kind consenting word,
 Doom me not in lifelong woe,
 One fond favour dear accord
 One sweet smile on me bestow.
 Do not treat my love too lightly,
 Do not bid me now depart,
 Do not veil those eyes which brightly
 Cheer my fond and loving heart—
 Thou canst know not half the torment
 Which in hopeless hearts can dwell,
 Brooding over love's bereavement.”
 “ Know ! she cried, “ I know too well.”—

Thus had he spoken when I burst in upon them,
 My lips white with rage, and my heart all on fire,
 They gazed but they moved not, a spell seem'd upon them
 And she clung to the youth as in dread of her sire,—
 Madden'd I saw the dear idol long cherished
 Half won from my love by that strange sailor boy ;—
 At the sight every spark of affection was banished,
 No wish, but the cause of my loss to destroy.—
 Sweetly she smiled, that old smile so enchanting,
 And whispered a word in the ear of the youth,
 And he pressed her more closely, hot kisses implanting,
 And uttering vows of his love and his truth.—
 Down on their knees they besought me to bless them,
 My eyes from their sockets in rage seem'd to start,
 And when bending o'er them as if to caress them,
 I planted my dagger deep, deep in his heart.—
 No groan passed his lips as he slowly rolled over
 Tho life's stream in red tide was fast ebbing away,
 And she who had plighted her troth to that lover,
 Grief-stricken endeavoured its current to stay.—
 Oh ! how she called,—how she begged,—how entreated,
 For a word,—e'en a sigh,—or a last look of love,
 But vainly, alas !—for his breath had departed,

E're she tenderly tried the fell dirk to remove,—
 There in her hand,—that pure hand of my jewel,
 She held the bright weapon all crimson'd with gore,
 And loving reproached,—“ thus to leave her was cruel.”
 But those lips their deep silence would never break more.—
 Then fondly she kissed him, her bright vesture staining,
 Appalled not, tho' horror and death stood so near,
 And cried “ Oh why should I thus be complaining,
 Let me join in the journey of one loved so dear.”
 Quick as the thought she bared her soft bosom,
 In frenzy I rushed to avert her sad fate,
 One instant of anguish ;—I caught up my blossom’—
 But woe ! woe is me ! I had caught her too late.—
 “ Father,” she whispered, “ but one thing remaineth,
 Let my last moments pass in a transport of joy,
 My life’s little lamp as it flick’reth and waneth,
 Let it wane and expire on the breast of that boy.—
 Gently I laid her besides her adored one,
 And gazed on the forms of the dying and dead,
 Contented to die ; could my own death restore one,
 Or atone for the innocent blood I had shed.—
 Forth from her lips the last sigh had departed,
 That ever should heave that snow-rivalling breast ;—
 Left alone with the dead, and my guilt,—broken hearted,
 Henceforward a pilgrim, unshrived, and unblest.
 And at night through the castle erst silent and lonely,
 Strange voices arose and strange shadows flew wild,
 Though varied their gestures. their tones echoed only,
 “ There ! there, stands the father who murdered his child.”—
 Swiftly the boat I unloosed from its mooring,
 And the oars strongly plied to leave danger behind,
 Yet still is the sight of that vision devouring,
 And those voices are borne to my ear on the wind.—

He ceased, for the strings of his harp were all broken,
 I looked—but the sorrowful minstrel had gone,
 And had left, save the tale of his sorrows no token.—
 The morning had dawned, and it found me alone.

" Oh leave me not, sweet Edith, stay,
Share thou my couch till break of day,
Thy tale of love and horror fills
My breast with tears, my blood it chills,
Edith, go not away.

Why shuns thou maiden, thus to share
My bed,—O grant my earnest prayer!
The lamp is dying,—but I fear
No vision dread when thou art near,
They fail to scare.

Why weep'st thou Edith? why those tears?
Let Agnes try to soothe thy fears:
Why does thy heart so loudly beat?
Why dost thou dread my gaze to meet?
Mourn'st thou the minstrel's cares?

Lend me thy hand to lead the way.
Hear me my pater-noster say,
Then let us sleep, till rosy morn
Shall laugh our timid fears to scorn
Sweet Edith, why delay?"

'Round Agnes and her loving maid
We fling at last the heavy shade

Of sacred sleep,—for vulgar eye
Should not (e'en tho' a poet's) pry
O'er slumber, undismay'd.

But from that night no sign appears
Of life,—till after lapse of years,
Some peasants forced the outer gate,
And found within all desolate,
And each expressed his fears,

Lest he might find the corpses laid,
Of love-lorn Agnes and her maid;—
But vainly tho' they searched the place,
They found of neither not a trace,
Save Edith's clothes display'd.

Since then strange fates the Hall has seen,
Lavished with praise, or scorn between;
But once there came a comely pair,
Who noted every object there,
Few were forgot I ween.—

And some did say who saw them stand,
That Agnes of High Sunderland,
Looked vastly like her,—and in truth,
The man seem'd like that shepherd youth
Who longed to claim her hand.—

I leave thee now old hall, I've had my way,
And love thee more,—
Hoping to visit thee some other day.
When one more worthy shall have sung a lay
And wrap'd thee in a garb of mystery,
Or furnished us a truer history,
Of thee of yore.

J. H..

Scientific Gossip.

Malleable Copper by Electro-deposition.—M. Bouillet has discovered a remedy for the brittleness of electro-deposited copper. He has found that a small quantity of gelatine dissolved in the copper bath gives a copper of nearly equal malleability to the rolled metal, whereas the pure bath gives a very porous metal like cast copper.—(Abbé Moigno.)

To Remedy the Dampness in Walls.—A correspondent of the *Chemical News*, recommends that the walls should receive several coats of Silicate of Soda (soluble glass), after which no damp will penetrate.

Blasting with Sodium.—According to the *British Journal of Photography*, experiments are being made in the Isle of Man and elsewhere to ascertain the value of Sodium, in contact with water and other substances, for blasting purposes.

Pre-Newtonian Discovery of the Law of Gravitation.—At a meeting of the Academy of Sciences at Paris, July 9, M. Chasles read extracts from papers and letters to show that Pascal had discovered and calculated, before Newton, the law of universal gravitation of masses in the inverse ratio of the square of the distance. Pascal died in 1662, three years before Newton made his great discovery.

Increasing the Power of Bunsen's Battery.—M. Zalinski has discovered a method of augmenting the power of Bunsen's battery, and making it more lasting. He uses two porous cells, one within the other. In the inner one containing the carbon he pours nitric acid, in the outer sulphuric acid; and in the outermost vessel a solution of chloride of ammonium in contact with the zinc. With the modification he says there is no effervescence, neither is any zinc consumed uselessly.

New Material for Gas Making.—The *Estafette* of Lausanne lately made the statement that between four and five millions of cockchafers were recently sent to Fryburg for the manufacture of gas, and the residue was found to form an excellent carriage grease!

Density of Ozone.—M. Soret has determined the density of this remarkable body to be $1\frac{1}{2}$ times as great as that of Oxygen; and this determination seems to be borne out by the results of experiments on its rate of diffusion.

Physiological Effects of Tobacco.—The Abbé Moigno writing to the *Chemical News*, says "In 1861, when writing our mathematical treatises, during our labours with M. Lindelof,.....we used snuff to excess, taking 20 to 25 grammes per day (about $\frac{3}{4}$ ounce), incessantly having recourse to the fatal box, and snuffing up the dangerous stimulant. The effect of this was, on the one hand, the stiffening of the nervous system, which we could not account for; on the other hand, a rapid loss of memory, not only of the present but of the past. We had learned several languages by their roots, and our memory was often at a loss for a word. Frightened at this considerable loss, we resolved, in September 1861, to renounce the use of snuff and cigars for ever. This resolution was the commencement of a veritable restoration to health and spirits, and our memory recovered all its sensibility and force. The same thing happened to M. Dubrunfaut, the celebrated chemist, in renouncing the use of tobacco. We do not hesitate in saying that for one moderate snuff-taker or smoker there are ninety-nine who use tobacco to excess."

The River Amazon.—Professor Agassiz, who has been engaged in examining the Amazon and its tributaries, in a letter to M. Elie de Beaumont, says he has found that that part of the American continent is formed of mud of diluvium resting on a cretaceous deposit, similar to the basin of the Seine or banks of the Somme. Speaking of the fish inhabiting the river, he states that most of them differ from those of other large rivers; and, what is still more singular even, the different sections of the Amazon have different inhabitants.

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